

AD-A118 934 ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/8 4/2
19310A MLRS, MISSILE NUMBERS BN-130, BN-189, BN-128, BN-146, BN--ETC(U)
JUL 82 D C KELLER
UNCLASSIFIED ERADCOM/ASL-DR-1250 NL

15-1
5
1H254

END
DATE
10-82
DCE

AD A118934

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER DR 1250	2. GOVT ACCESSION NO. AD-A118934	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) 19310A MLRS Missile Number BN-130, BN-129, BN-128, BN-146, BN-114, BN-166 Round Number V-283/PQ-23 thru V-288/PQ-28		5. TYPE OF REPORT & PERIOD COVERED
7. AUTHOR(s) White Sands Meteorological Team		6. PERFORMING ORG. REPORT NUMBER DA Task 1F665702D127-02
9. PERFORMING ORGANIZATION NAME AND ADDRESS		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS US Army Electronics Research and Development Cmd Atmospheric Sciences Laboratory White Sands Missile Range, New Mexico 88002		12. REPORT DATE 21 July 1982
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) US Army Electronics Research and Development Cmd Adelphi, MD 20783		13. NUMBER OF PAGES 44
15. SECURITY CLASS. (of this report) UNCLASSIFIED		
15a. DECLASSIFICATION/DOWNGRADING SCHEDULE		
16. DISTRIBUTION STATEMENT (of this Report)		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report) Approved for public release; distribution unlimited.		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Metereological data gathered for the launching of 19310A MLRS, Missile Number BN-130, BN-129, BN-128, BN-146, BN-114, BN-166, Round Number V-283/PQ-23 thru V-288/PQ-28 are presented in tabular form.		

	CONTENTS	PAGE
INTRODUCTION-----		1
DISCUSSION-----		1
GENERAL AREA MAP-----		2
LAUNCH AREA DIAGRAM-----		3
TABLES		
1. Surface Observation Taken at 1352 & 1624 MDT at D-3 $\frac{1}{2}$ -----		4
2. Launch and Impact Area pilot-balloon Measured Wind Data at 1352 MDT-----		5
3. Launch and Impact Area pilot-balloon Measured Wind Data at 1623 MDT-----		6
4. Aiming and T-Time Computer Met Messages-----		7
5. NW-30 Significant Level Data at 0915 MDT-----		9
6. NW-30 Upper Air Data at 0915 MDT-----		10
7. NW-30 Mandatory Levels at 0915 MDT-----		14
8. E-28 Significant Level Data at 1015 MDT-----		15
9. E-28 Upper Air Data at 1015 MDT-----		17
10. E-28 Mandatory Levels at 1015 MDT-----		21
11. E-28 Significant Level Data at 1325 MDT-----		22
12. E-28 Upper Air Data at 1325 MDT-----		24
13. E-28 Mandatory Levels at 1325 MDT-----		28
14. NW-30 Significant Level Data at 1352 MDT-----		29
15. NW-30 Upper Air Data at 1352 MDT-----		30
16. NW-30 Mandatory Levels at 1352 MDT-----		34
17. E-28 Significant Level Data at 1623 MDT-----		35
18. E-28 Upper Air Data at 1623 MDT-----		36
19. E-28 Mandatory Levels at 1623 MDT-----		40

INTRODUCTION

19310A MLRS, Missile Numbers BN-130, BN-129, BN-128, BN-146, BN-114, and BN-166, Round Numbers V-283/PQ-23 thru V-288/PQ-28, were launched from Brillo, White Sands Missile Range (WSMR), New Mexico, at 1352:01, 1352:06, 1352:10, 1622:59, 1623:04, and 1623:09 MDT, 21 Jul 82. The scheduled launch times were 1315, 1315:04.5, 1315:09, 1600, 1600:04.5, and 1600:09. MST.

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), wind direction and speed, and cloud cover were made at the D-3½ Met Site at T-0 minutes.

(2) Monitor of wind speed and direction from one anemometer was provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from pilot-balloon observations at:

SITE AND ALTITUDE

D-3½ 2 km 1352 MDT
MAL 2 km 1356 MDT
MAL 2 km 1627 MDT

(2) Air structure data (rawinsonde) were collected at the following Met Sites:

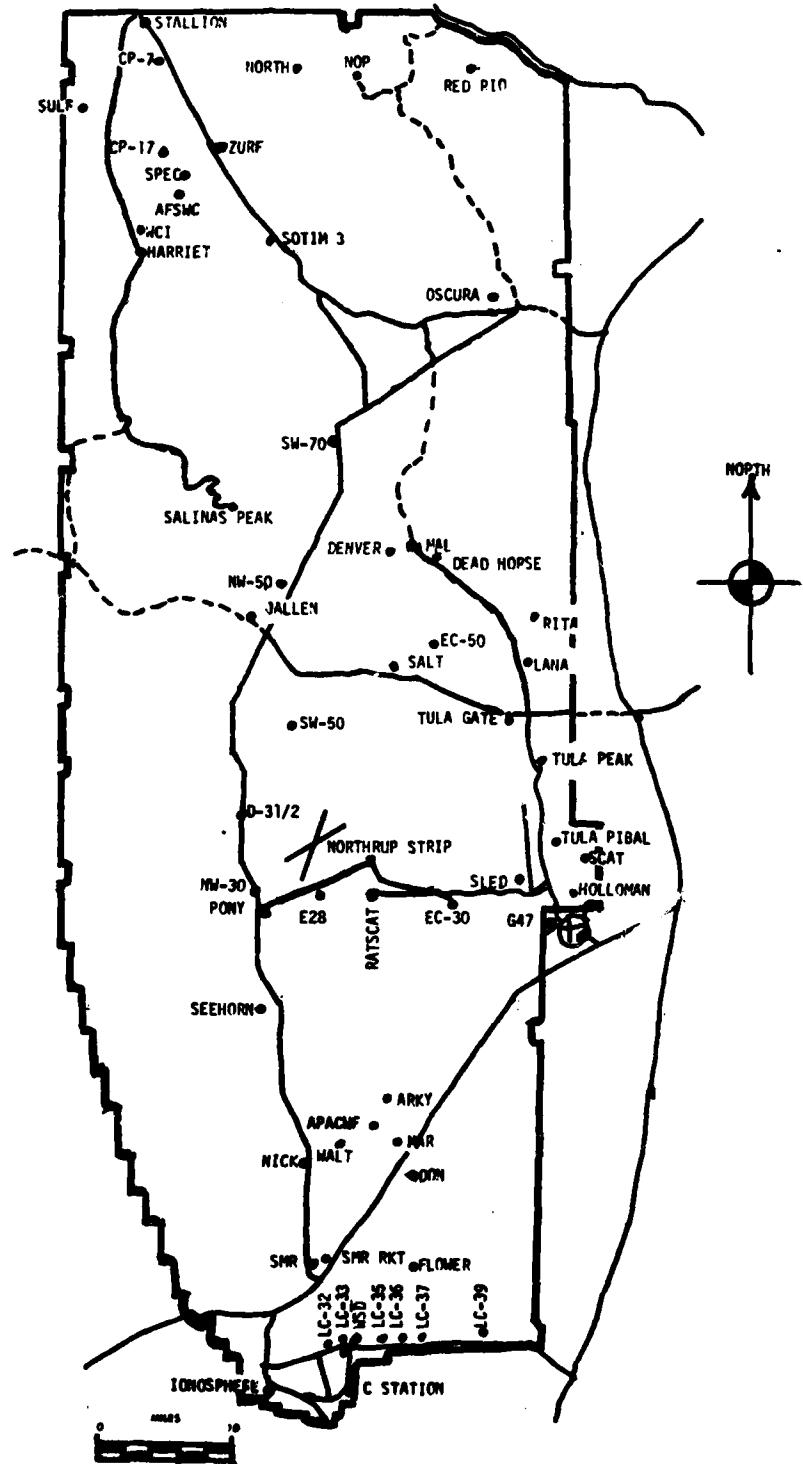
SITE AND TIME

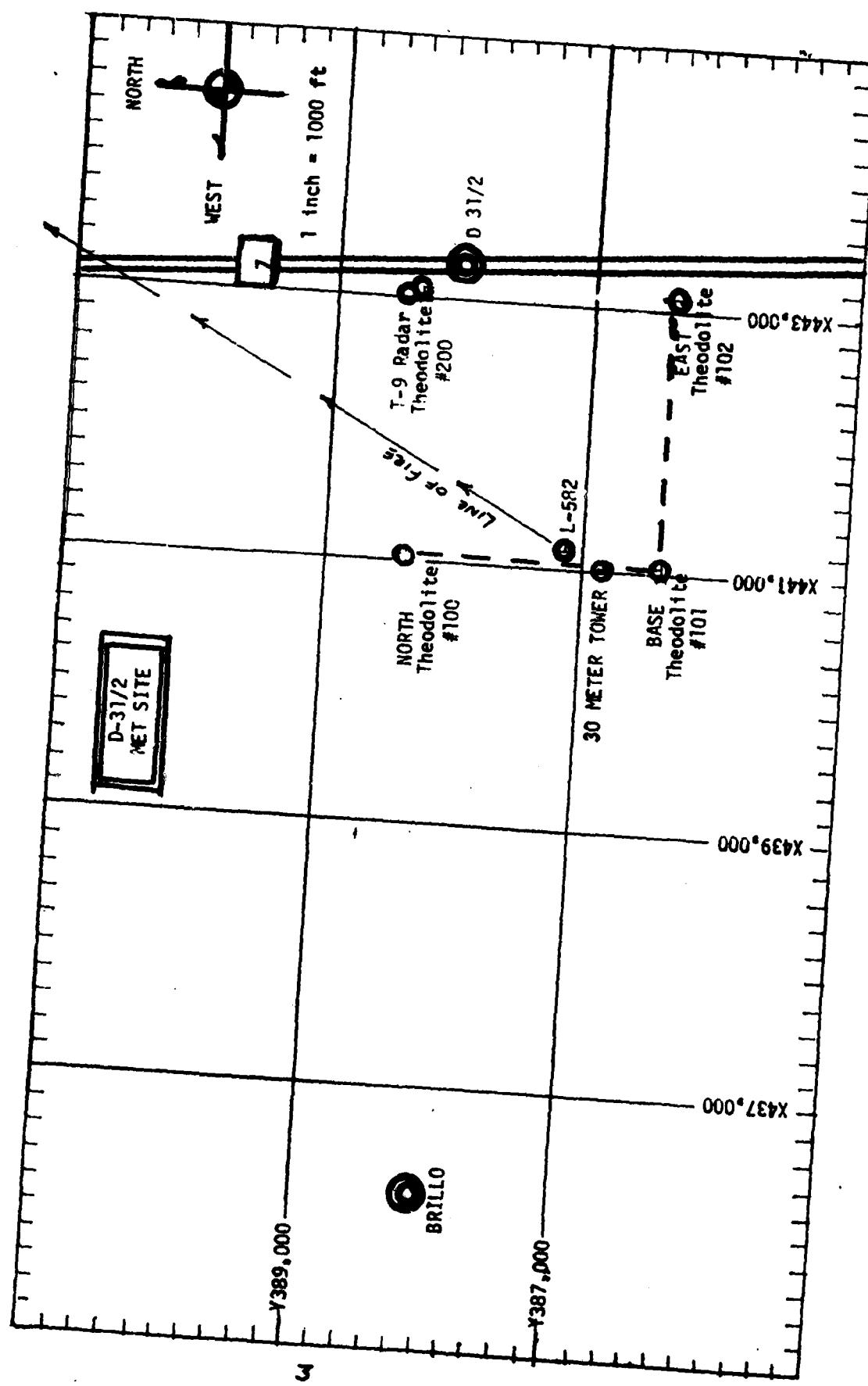
NW-30 0915 MDT
E-28 1015 MDT
E-28 1325 MDT
NW-30 1352 MDT
E-28 1623 MDT



Accession For	
NTIS	GRA&I
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By _____	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A	

WSMR METEOROLOGICAL SITES





DIRECT SURFACE OBSERVATION

TABLE 1

DATE 21 Jul 82
MONTH YEAR

TIME H <u>D</u> <u>I</u>	PRESSURE in. Hg	TEMPERATURE °C	DEW POINT °C	RELATIVE HUMIDITY %	SENSIT. C°/hr	DIRECTION deg. Tn	WIND kts	SPEED kts	CHARACTE R	VISIBIL ITY
1352	880.2	93.5	34.2	56.4	13.5	29	990	120	09	40
1624	879.1	96.6	35.9	64.4	17.9	35	980	100	13	40

OBSTRUCTIONS TO VISIBILITY	CLOUDS			REMARKS		
	1st LAYER HGT TYPE	2nd LAYER HGT TYPE	3rd LAYER HGT TYPE	4th LAYER HGT TYPE	5th LAYER HGT TYPE	6th LAYER HGT TYPE
7	SC 5000	2 AS	12,000			
6	SC 6000	1 AS	12,000			

PSYCHROMETRIC COMPUTATION

TIME:	MST	1352	1624
DRY BULB TEMP.	93.5	96.6	
WET BULB TEMP.	68.2	73.3	
NET BULB DEPR.	25.3	23.3	
DEW POINT	56.4	64.4	
RELATIVE HUMID.	29	35	

TABLE 2T-TIME PILOT-BALLOON TRAJECTORY MDT
DATE 21 July 1982

SITE: D-3½
 TIME: 1352 MDT
 WSTM COORDINATES:
 X= **441,053.12**
 Y= **386,316.94**
 H= **4,008.31**

SITE: MAL
 TIME: 1356 MDT
 ASW COORDINATES:
 X= **509,421.05**
 Y= **495,563.18**
 H= **4,126.81**

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS	LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	120	09	SURFACE	200	02
150	124	04	150	211	11
210	125	05	210	210	12
270	125	05	270	208	12
330	124	06	330	207	12
390	124	06	390	206	12
500	122	06	500	207	12
650	127	06	650	195	11
800	132	07	800	179	10
950	136	10	950	179	11
1150	142	15	1150	175	08
1350	146	20	1350	168	05
1550	152	17	1550	188	03
1750	029	03	1750	107	05
2000	093	06	2000	079	07

Data obtained from double
 Theodolite Tracked
 pilot-balloon observation.

Data obtained from single
 Theodolite Tracked pilot-balloon
 observation.

TABLE 3

T-LINE PILOT-BALLOON OBSERVATION
DATE 21 July 1982

SITE: D-3½
TIME: 1623 MDT
WSTN COORDINATES:
X= 441,053.12
Y= 386,316.94
H= 4,008.31

SITE: MAL
TIME: 1627 MDT
WSTN COORDINATES:
X= 509,421.05
Y= 495,563.18
H= 4,126.81

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS	LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE			SURFACE	170	03
150	DATA		150	141	09
210	NOT		210	140	10
270	AVAILABLE		270	142	10
330			330	144	10
390			390	144	09
540			540	140	06
650			650	130	04
800			800	120	04
950			950	107	04
1150			1150	083	04
1350			1350	072	04
1550			1550	047	03
1750			1750	032	03
2000			2000	024	02

Data obtained from single Theodolite
Tracked pilot-balloon observation.

TABLE 4

AIMING AND T-TIME COMPUTER MET MESSAGES

21 July 1982

NW-30	0915 MDT	E-28	1015 MDT	E-28	1325 MDT
METCM1329065		METCM1329064		METCM1329064	
211530121882		211630119885		211940119884	
00000000	29900882	00000000	30110885	00000000	31150884
01576004	29930872	01034002	30000875	01275005	30810874
02296004	29940848	02353004	29990850	02253006	30460850
03234007	29670810	03252007	29790812	03257008	30120812
04630004	29410764	04057002	29520767	04161002	29720767
05078002	29040721	05050006	29070723	05131005	29280724
06055001	28610680	06079006	28650682	06120007	28830683
07111008	28170640	07092009	28300642	07102008	28350643
08187006	27770602	08124006	27830604	08097009	27900606
09185006	27380566	09193003	27380568	09018003	27440569
10165006	27010532	10173003	27030534	10630004	27110535
11100007	26700499	11093005	26670501	11091005	26810502
12030004	26250453	12052005	26260455	12141003	26350456
13133006	25650397	13153006	25720399	13182007	25790400
14096016	25000347	14155012	24990349	14187013	25080350
15132017	24240303	15152017	24280304	15159017	24330305
16145013	23420262	16155011	23520264	16102012	23570265
17021009	22630226	17085011	22740227	17123016	22780229
18053011	21920194	18079014	21980195	18166018	21960196
19155015	21210166	19122013	21170167	19142015	21320168
20162014	20650141	20177015	20720142	20176013	20750143
21110020	20370120	21123019	20290120	21130020	20280121
22125025	20350101	22136027	20320102	22146028	20270102
23192022	20840086	23166025	20870086	23173024	20670087
24177018	21130073	24152021	21080073	24163026	20940074
25156029	21100062	25161026	21150063	25191028	21450063
26163031	21490053	26167030	21550053	26173027	21660054

TABLE 4 cont'd

AIMING AND T-TIME COMPUTER MET MESSAGES

21 July 1982

NW-30	1352 MDT	E-28	1623 MDT
METCM1329065		METCM1329064	
211990121881		212240119882	
00000000	30970881	00160004	31030882
01257006	30820871	01192007	30860872
02154005	30470847	02245008	30560848
03303001	30110810	03274007	30180811
04112003	29670765	04259004	29710766
05140003	29210722	05195002	29230723
06109006	28760681	06181004	28800682
07109006	28300641	07130007	28390642
08092008	27840603	08024006	27940605
09038003	27430567	09015008	27540569
10093003	27180533	10639006	27120534
11141008	26880500	11210004	26860502
12117003	26390455	12203008	26330456
13167007	25740399	13141010	25630400
14181011	25010349	14160011	25050349
15173013	24250304	15155013	24270304
16115012	23470263	16118011	23500264
17126014	22690227	17158012	22660228
18167014	21920195	18174012	21850196
19122014	21280167	19107014	21220167
20165012	20680142	20133014	20610142
21118021	20220120	21145028	20230120
22149029	20350102	22183032	20380102
23166021	20670086	23198016	20660086
24172024	21020073	24208023	20980073
25187025	21320062	25172027	21280062
26161028	21610053	26151028	21540053

STATION ALTITUDE 4010.40 FEET MSL
21 JULY 1962 0915 MDT
ASCENSUS NO. 17

SIGNIFICANT LEVEL DATA
NW 30

GEODETIC COORDINATES
32°00'49.7 LAT LG
106°49'14.0 LONG LG

TABLE-5

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE DEGREES CENTIGRADE	AIR DEW POINT DEGREES CENTIGRADE	HELIUM PERCENT
982.3	4010.4	24.2	10.5	+2.4
669.1	47444.1	24.3	11.9	46.0
663.4	46333.7	24.9	12.0	47.0
650.0	5084.9	24.6	12.9	48.0
785.1	7356.3	19.9	10.2	54.0
767.1	3014.1	19.8	9.4	51.0
700.0	10581.5	13.8	4.7	54.0
626.1	13633.1	5.7	2.0	77.0
590.0	15224.0	2.4	-2.3	71.0
565.4	16352.1	-0.4	-2.4	66.0
541.1	17503.7	-3.2	-4.2	41.0
500.0	19550.6	-6.5	-9.1	62.0
473.2	20958.3	-10.4	-14.1	67.0
471.0	21076.7	-9.3	-14.0	54.0
465.4	21490.8	-9.3	-15.0	59.0
421.4	23684.2	-14.8	-18.7	72.0
412.3	24427.8	-15.3	-23.1	51.0
400.0	25178.5	-17.0	-29.0	57.0
386.4	26031.8	-17.9	-26.0	67.0
377.4	26611.1	-18.8	-25.6	57.0
314.0	31034.8	-28.8	-36.1	49.0
300.0	32104.3	-31.3	-40.0	59.0
260.2	35370.1	-39.3	-49.4	53.0
250.0	36267.2	-42.0		
200.0	41126.2	-53.0		
182.4	43069.1	-56.3		
164.6	45168.1	-61.5		
150.0	47071.3	-65.9		
132.0	49500.5	-67.4		
123.4	50950.9	-69.9		
113.0	52681.2	-79.6		
103.3	54439.7	-81.2		
100.0	55075.9	-69.6		
80.4	59441.5	-62.7		
70.0	62269.9	-61.3		
60.4	65281.3	-62.9		
50.0	69187.0	-56.2		
50.0	74672.0	-52.2		

STATION ALTITUDE 4010.40 FEET MSL
21 JULY 1952 0915 PDT
ASCENSION NO. 17

U P R A I R U M A
192022Z017
NW 30
TABLE-6

GEODETIC COORDINATES
32.80497 LAT UG
106.49714 LON DEG

GEOMETRIC PRESSURE ALITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY G/CUBIC METER	SPREAD OF SOUND KNOTS	WIND DATA WIND DIRECTION DEGREES (IN) WIND SPEED KNOTS	INDEX OF REFRACTION
4010.4	24.2	10.5	42.0	1026.0	073.0	1.000284
4500.0	24.5	12.2	46.3	1009.0	074.2	1.000280
5000.0	24.5	12.9	47.8	990.7	074.5	1.000264
5500.0	23.7	12.4	49.1	970.0	075.3	1.000260
6000.0	22.7	11.9	50.4	960.1	072.2	1.000275
6500.0	21.7	11.3	51.7	949.9	071.0	1.000270
7000.0	20.6	10.7	53.1	936.6	069.1	1.000266
7500.0	19.9	10.1	53.3	925.4	068.9	1.000262
8000.0	19.8	9.4	51.1	907.5	066.7	1.000260
8500.0	15.9	8.5	51.6	895.0	067.4	1.000254
9000.0	17.5	7.6	52.2	882.9	065.9	2.4
9500.0	16.5	6.7	52.7	871.1	064.5	2.3
10000.0	15.2	5.7	53.3	859.3	063.1	1.5
10500.0	14.0	4.8	53.9	847.6	061.7	1.4
11000.0	12.7	4.4	57.2	830.3	060.2	1.3
11500.0	11.4	4.1	60.9	825.0	058.0	1.5
12000.0	10.0	3.7	64.7	815.9	057.1	1.5
12500.0	8.7	3.2	68.5	803.0	055.5	3.2
13000.0	7.4	2.7	72.2	792.2	053.9	1.9
13500.0	6.1	2.1	76.0	781.0	052.4	1.000219
14000.0	4.9	1.0	75.5	770.5	051.0	1.000217
14500.0	3.9	-0.3	73.7	759.4	049.7	1.000216
15000.0	2.9	-1.7	71.8	748.3	048.3	1.000215
15500.0	1.7	-2.3	74.7	737.5	047.0	1.000214
16000.0	0.5	-2.3	81.3	727.0	045.5	1.000213
16500.0	-0.2	-1.9	86.6	716.6	044.1	1.000212
17000.0	-2.0	-3.6	86.6	706.3	042.0	1.000211
17500.0	-3.2	-4.4	91.0	696.2	041.1	1.000210
18000.0	-4.0	-5.6	88.0	685.1	040.1	1.000209
18500.0	-4.8	-6.7	86.4	674.1	039.0	1.000208
19000.0	-5.7	-7.8	84.4	663.4	038.0	1.000207
19500.0	-6.4	-8.9	62.2	652.0	037.0	1.000206
20000.0	-7.7	-10.0	83.6	645.4	036.4	1.000205
20500.0	-9.1	-11.1	85.4	634.4	035.7	1.000204
21000.0	-10.4	-13.0	78.9	624.0	034.2	4.8
21500.0	-9.3	-15.8	59.0	610.0	033.4	3.8
22000.0	-10.5	-16.4	61.8	601.4	031.9	3.9
22500.0	-11.6	-16.9	64.5	592.2	030.5	4.2
23000.0	-12.6	-17.6	67.2	583.2	029.1	3.9
23500.0	-13.9	-18.2	69.9	574.0	027.7	3.6

STATION NUMBER 48915405, 1 MSL
21 JULY 62
ASCENSION NO. 17

UPLR AIR DATA
21202400017
LW 30
TABLE-6 cont'd

GEODETIC COORDINATES
32.08497 LAT DEG
106.49714 LON DEG

GEODETIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DELTU OF GEM/CAHIC METER	DELTU OF SOUND KNOTS	DIRECTION OF WIND (IN) DEGREES (IN)	WIND SPEED KNOTS	INDEX OF REFRACTION
24000.0	419.4	-14.9	67.5	565.4	620.4	12.2	2.4	1.000133
24500.0	411.1	-15.5	-23.1	51.6	555.3	32.3	1.3	1.000129
25000.0	402.9	-16.6	-23.4	55.6	540.0	32.3	3.2	1.000127
25500.0	394.8	-17.3	-23.1	60.8	537.2	32.4	6.1	1.000125
26000.0	386.9	-17.9	-22.5	66.6	527.5	32.8	9.2	1.000123
26500.0	379.1	-18.6	-24.6	58.9	518.2	32.8	12.5	1.000120
27000.0	372.3	-19.7	-26.1	56.3	510.0	70.5	14.0	1.000118
27500.0	365.7	-20.8	-27.4	55.4	501.8	60.4	14.7	1.000116
28000.0	358.2	-21.9	-28.6	54.5	493.7	52.3	15.4	1.000113
28500.0	340.9	-23.1	-29.8	53.6	485.0	40.1	16.0	1.000111
29000.0	341.7	-24.2	-31.1	52.7	477.9	46.7	16.1	1.000109
29500.0	334.7	-25.3	-32.3	51.8	470.3	55.4	16.0	1.000107
30000.0	327.8	-26.5	-33.5	50.9	462.7	51.0	16.3	1.000105
30500.0	321.1	-27.6	-34.8	50.0	455.3	51.0	97.3	1.000103
31000.0	314.5	-28.7	-36.0	49.1	446.0	50.9	70.4	1.000102
31500.0	307.9	-29.9	-38.9	47.9	440.7	72.4	16.9	1.000100
32000.0	301.3	-31.1	-40.0	40.0	433.3	74.5	16.8	1.000098
32500.0	294.9	-32.3	-41.7	38.3	426.4	60.4	77.3	16.8
33000.0	288.5	-33.5	-43.0	37.4	419.3	60.2	79.9	16.6
33500.0	282.3	-34.7	-44.3	36.4	412.4	60.0	82.4	16.3
34000.0	276.2	-35.9	-45.7	35.5	405.0	60.0	84.3	1.000091
34500.0	270.5	-37.2	-47.0	34.6	398.9	59.5	85.6	1.000089
35000.0	264.4	-38.4	-48.4	33.7	392.4	59.6	83.6	1.000088
35500.0	258.7	-39.7	-51.1	28.2**	386.0	59.5	85.9	12.4
36000.0	253.0	-41.2	-60.8	9.8**	380.0	59.3	77.2	11.2
36500.0	247.3	-42.5	-42.5	37.0	391.0	70.9	9.8	1.000083
37000.0	241.7	-43.7	-43.7	36.0	390.2	57.3	8.1	1.000082
37500.0	236.2	-44.8	-45.9	36.0	386.4	58.7	7.9	1.000080
38000.0	230.9	-45.9	-51.1	35.7	354.0	587.3	17.7	1.000079
38500.0	225.6	-47.1	-52.7	347.7	388.0	26.0	9.4	1.000077
39000.0	220.5	-48.2	-52.7	341.3	384.3	9.4	11.0	1.000076
39500.0	215.5	-49.3	-53.0	335.4	382.0	32.3	12.3	1.000075
40000.0	210.6	-50.5	-53.0	329.0	381.4	0.0	13.3	1.000073
40500.0	205.8	-51.6	-53.0	323.0	379.9	20.6	13.1	1.000072
41000.0	201.2	-52.7	-53.0	317.9	376.4	10.9	13.1	1.000071
41500.0	196.5	-53.6	-53.0	311.8	377.4	41.0	11.5	1.000070
42000.0	191.9	-54.5	-53.0	305.7	376.1	26.6	10.0	1.000069
42500.0	187.4	-55.3	-53.0	299.7	373.0	57.6	9.7	1.000068
43000.0	183.0	-56.2	-53.0	293.0	373.0	15.0	10.5	1.000067
43500.0	178.6	-57.4	-53.0	286.4	372.3	86.9	11.9	1.000066

** AT LEAST ONE SOUND RELATIVE HUMIDITY VALUE. ** AS USED IN THE INTERPOLATION.

STATION ALTITUDE 4010.40 FEET MSL
21 JULY 0915 ADT
ASSEMBLY NO. 17

UPPER AIR DATA
2020Z 2001/
NW 30

GEODETIC COORDINATES
32.05497 LAT DEG
106.49974 LON DEG

TABLE-6 cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KIOTS	DIRECTION DEGREES (TN)	WIND DATA SPEED KIOTS	INDEX OF REFRACTION
44000.0	174.4	-58.6	283.1	370.0	07.5	13.9	1.000063	
44500.0	170.2	-59.8	278.0	369.0	07.0	15.8	1.000062	
45000.0	166.1	-61.1	272.9	367.5	07.1	16.7	1.000061	
45500.0	162.1	-62.3	267.8	365.7	06.3	17.1	1.000060	
46000.0	158.2	-63.4	262.7	364.2	06.4	17.1	1.000059	
46500.0	154.3	-64.6	257.7	362.0	08.7	16.3	1.000057	
47000.0	150.5	-65.7	252.8	361.4	91.3	15.5	1.000056	
47500.0	146.8	-66.2	247.1	360.5	92.5	15.1	1.000055	
48000.0	143.2	-67.5	241.3	360.1	95.6	14.7	1.000054	
48500.0	139.6	-68.8	235.7	359.1	95.3	14.3	1.000052	
49000.0	136.2	-67.1	230.4	358.4	66.4	13.3	1.000051	
49500.0	132.8	-67.4	224.9	356.0	78.1	12.6	1.000050	
50000.0	129.5	-68.3	220.2	357.6	70.7	13.4	1.000049	
50500.0	126.2	-69.1	215.0	356.5	65.7	15.5	1.000048	
51000.0	123.1	-69.9	211.0	355.4	02.4	17.7	1.000047	
51500.0	120.0	-69.8	205.0	355.5	01.9	20.1	1.000046	
52000.0	117.0	-69.7	200.3	356.7	61.6	22.5	1.000045	
52500.0	114.0	-69.6	195.4	356.4	01.4	23.0	1.000043	
53000.0	111.2	-69.9	190.3	356.4	01.6	23.0	1.000042	
53500.0	108.4	-70.3	186.2	354.6	61.0	23.0	1.000041	
54000.0	105.6	-70.8	181.9	354.2	64.1	23.5	1.000040	
54500.0	103.0	-71.0	177.5	355.2	68.0	24.3	1.000039	
55000.0	100.4	-69.8	172.0	355.0	71.0	25.1	1.000038	
55500.0	97.9	-68.9	167.0	356.7	77.9	25.7	1.000037	
56000.0	95.5	-68.1	162.3	357.8	65.9	26.5	1.000036	
56500.0	93.1	-67.3	157.6	358.9	93.6	27.8	1.000035	
57000.0	90.8	-66.6	153.2	360.0	97.0	26.6	1.000034	
57500.0	88.6	-65.8	149.0	361.0	02.2	24.6	1.000033	
58000.0	86.4	-65.0	144.0	362.1	07.3	22.8	1.000032	
58500.0	84.3	-64.2	140.5	363.2	19.0	21.4	1.000031	
59000.0	82.2	-63.4	136.5	364.2	110.5	20.0	1.000030	
59500.0	80.2	-62.7	132.7	365.2	112.4	18.7	1.000029	
60000.0	78.2	-62.4	129.3	365.5	110.5	18.1	1.000029	
60500.0	76.3	-62.2	126.1	365.9	108.0	17.7	1.000028	
61000.0	74.5	-61.9	122.9	366.2	105.4	17.3	1.000027	
61500.0	72.7	-61.7	119.7	366.5	100.7	16.0	1.000027	
62000.0	70.9	-61.4	116.7	366.9	95.6	20.1	1.000026	
62500.0	69.2	-61.4	113.9	366.9	90.4	22.3	1.000025	
63000.0	67.5	-61.7	111.2	366.9	97.1	24.3	1.000025	
63500.0	65.9	-62.0	108.7	366.2	105.7	25.9	1.000024	

STATION ALTITUDE 4010.40 FEET MSL
 21 JULY 82 0915 MDT
 AUSCHSUCH NO. 17

UPPER AIR DATA
 20200017
 NW 30
 TABLE 6 cont'd

GEODETIC COORDINATES
 32.86497 LAT UG
 106.49714 LONG UG

GEODETIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	DEWPOINT DEGREES CENTIGRADE	REL HUM PERCENT	LENSITY CM/CURR	REL SOUND WATER	WIND DIRECTION DEGREES	WIND SPEED KNOTS	WIND DATA CORRELATION	INFLUX UP	REFRACTION
04000.0	64.5	-62.2	-62.5	100.2	565.8	88.0	88.0	88.0	0.000024	27.5	
04500.0	62.8	-62.5	-62.8	105.5	565.4	87.7	87.7	87.7	0.000023	28.4	
05000.0	61.2	-62.8	-63.1	101.4	565.1	87.5	87.5	87.5	0.000023	28.1	
05500.0	59.5	-62.5	-61.7	96.0	565.4	87.5	87.5	87.5	0.000022	27.8	
06000.0	58.9	-61.7	-61.7	90.1	565.5	87.5	87.5	87.5	0.000021	28.1	
06500.0	57.9	-60.8	-60.8	93.4	567.7	88.5	88.5	88.5	0.000021	29.3	
07000.0	56.6	-60.0	-60.0	90.8	566.8	89.5	89.5	89.5	0.000020	30.6	
07500.0	54.5	-59.1	-59.1	86.3	570.0	90.4	90.4	90.4	0.000020	31.9	
08000.0	53.0	-58.2	-58.2	85.6	571.1	90.7	90.7	90.7	0.000019	32.6	
08500.0	51.7	-57.4	-57.4	83.5	572.3	91.4	91.4	91.4	0.000019	33.1	
09000.0	50.5	-56.5	-56.5	81.4	573.4	91.5	91.5	91.5	0.000018	33.6	
09500.0	49.3	-56.0	-56.0	79.0	574.1	91.6	91.6	91.6	0.000018	34.1	
10000.0	48.1	-55.6	-55.6	77.1	574.6	92.7	92.7	92.7	0.000017	33.4	
10500.0	47.0	-55.2	-55.2	75.1	575.1	93.0	93.0	93.0	0.000017	32.6	
11000.0	45.9	-54.9	-54.9	73.3	575.6	94.0	94.0	94.0	0.000016	31.9	
11500.0	44.8	-54.5	-54.5	71.4	576.0	95.4	95.4	95.4	0.000016	31.0	
12000.0	43.6	-54.1	-54.1	69.6	576.5	96.0	96.0	96.0	0.000016	29.8	
12500.0	42.8	-53.8	-53.8	67.9	577.0	97.6	97.6	97.6	0.000015	28.5	
13000.0	41.8	-53.4	-53.4	66.2	577.5				0.000015		
13500.0	40.8	-53.1	-53.1	64.6	578.0				0.000014		
14000.0	37.8	-52.7	-52.7	63.0	578.4				0.000014		
14500.0	36.9	-52.3	-52.3	61.4	578.9				0.000014		

STATION ALTITUDE 4010.40 FEET MSL
21 JULY 02 0915 ADT
ASCENSION NO. 17

MANDATORY LEVELS
2020220017
HW 30

TABLE-7

GEOMETRIC COORDINATES
32.00097 LAT DEG
106.49714 LONG DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE DEGREES CENTIGRADE	AIR DEPOINT CENTIGRADE	RELATIVE HUMIDITY PERCENT	WIND DIRECTION DEGREES (TIN)	WIND SPEED KNOTS
650.0	5081.	24.6	12.9	40.	144.4	3.9
600.0	6617.	21.0	11.0	50.	125.1	5.1
750.0	8644.	18.3	8.2	52.	30.	2.5
700.0	10571.	13.8	4.7	54.	140.9	1.3
650.0	12605.	8.4	3.1	69.	57.9	0.5
600.0	14759.	5.3	-1.1	73.	106.6	0.2
550.0	17056.	-2.2	-5.7	89.	97.1	0.7
500.0	19523.	-6.5	-9.1	62.	50.8	7.0
450.0	22202.	-11.0	-16.0	63.	30.4	4.1
400.0	25137.	-17.0	-23.5	57.	74.5	40.1
350.0	28394.	-22.9	-29.6	54.	46.9	15.9
300.0	32040.	-31.3	-40.6	59.	75.1	10.6
250.0	36186.	-42.0			75.0	
200.0	41026.	-53.0			142.0	12.1
175.0	43820.	-58.4			87.3	15.5
150.0	46944.	-65.9			91.0	12.5
125.0	50552.	-69.5			64.3	16.2
100.0	54906.	-69.6			71.9	25.2
80.0	59346.	-62.6			112.2	10.7
70.0	62056.	-61.3			92.0	21.1
60.0	65182.	-62.7			87.4	27.9
50.0	68927.	-56.2			91.7	33.8
40.0	73616.	-52.6				

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE AS USE IN THE INTERPOLATION.

STATION ALTITUDE 3412.7 FEET MSL
21 JULY 1942
ASCENSION NO. 80

SIGHTING LEVEL DATA
TABLE-8

GEODETIC COORDINATES
52.89927 LAT DEG
166.40391 LON DEG

PRES. UPT. CLOMETHIC MILLIBARS MSL FEET	TEMPERATURE DEGREES CENTIGRADE	AIR DENSITY DEGREES CENTIGRADE	REL. HUM. PERCENT
384.5	3912.7	26.0	44.0
876.3	4161.7	24.2	31.0
859.5	4740.5	25.6	31.0
850.0	5061.6	24.4	31.0
825.0	5720.6	23.5	30.0
817.3	6189.9	23.3	31.0
788.1	7230.5	21.1	34.0
769.1	7925.5	20.9	30.0
706.0	10570.2	13.5	27.0
627.3	13576.4	7.2	24.0
592.1	15127.9	2.4	19.0
566.6	16284.3	0.6	12.0
534.3	17830.9	-3.6	4.7
516.1	16730.3	-5.4	7.0
506.0	19546.8	-7.4	7.7
496.4	20045.5	-9.2	6.0
477.1	20745.3	-9.4	9.0
468.9	21185.8	-10.5	12.4
453.1	22054.9	-10.3	15.2
427.2	23537.9	-13.8	17.6
413.6	24346.6	-14.3	22.9
406.0	25179.3	-15.6	26.0
356.3	28425.0	-23.5	59.0
336.7	29376.0	-24.8	33.0
306.0	32105.6	-31.1	4.0
266.3	35368.6	-38.6	29.0
256.0	36277.3	-41.0	24.0
206.0	41156.7	-52.1	
161.9	45550.6	-63.4	
156.0	47093.7	-64.3	
123.5	50992.2	-70.2	
104.8	54165.4	-72.1	
102.7	54559.2	-71.6	
100.0	55081.9	-68.7	
80.4	59459.1	-62.5	
70.1	62282.2	-62.3	
61.2	65024.2	-62.0	
55.8	66925.2	-58.9	
56.0	69217.2	-55.8	
42.3	72521.6	-51.4	

STATION ALTITUDE 3412.75 FEET MSL
21 JULY 1972 1015 MDT
ASSEMBLION NO. 80

SIGNAL ISLAND LEVEL, U.S.A.
2020230000
L-2B
TABLE-8 cont'd

PRESSURE	GEOMETRIC ALTITUDE	TEMPERATURE AIR DEPOINT	RELATIVE HUMIDITY PERCENT
30.0	75072.7	-51.9	
34.6	77099.7	-47.8	

STATION FILE NUMBER
32.049927 LAT U.S.
106.40591 LONG DEG

STATION ALTITUDE 3912.75 FEET MSL
21 JULY 62 1015 HGT
ASCENSION NO. 80

UPPER AIR DATA
212129006U
L-23

TABLE-9

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREE CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	DIR. OF WIND DEGREES ANG.	MIN. DATA SPEED KNOTS	INDEX OF REFRACTION
3912.7	884.5	26.0	44.0	1023.5	076.0	0	1.000291
4000.0	881.8	25.4	46.3	1024.0	075.0	0.3	1.000292
4500.0	860.7	25.0	51.0	1005.0	079.1	2.0	1.000293
5000.0	851.8	24.6	51.0	989.0	074.0	3.6	1.000294
5500.0	837.1	23.9	50.5	975.0	073.0	5.3	1.000295
6000.0	822.7	23.4	50.3	959.9	073.0	5.9	1.000296
6500.0	806.5	22.6	51.9	945.0	076.0	122.7	1.000273
7000.0	794.5	21.6	53.3	932.9	071.0	94.0	1.000274
7500.0	780.7	21.0	52.4	916.0	070.0	55.0	1.000275
8000.0	767.1	20.7	50.2	903.9	069.0	17.0	1.000276
8500.0	753.5	19.3	51.5	892.4	066.0	20.4	1.000277
9000.0	740.2	17.9	52.8	881.1	066.5	31.2	1.000278
9500.0	727.0	16.5	54.2	870.0	064.0	30.4	1.000279
10000.0	714.4	15.1	55.5	859.0	063.0	29.7	1.000275
10500.0	701.8	13.7	53.3	846.4	061.4	29.0	1.000276
11000.0	689.1	12.6	49.9	836.1	060.1	40.6	1.000277
11500.0	676.7	11.6	46.6	824.0	059.0	34.0	1.000278
12000.0	664.4	10.5	40.2	812.0	057.7	33.0	1.000279
12500.0	652.4	9.5	3.8	800.5	056.4	33.4	1.000275
13000.0	640.6	8.4	3.4	789.0	055.2	30.3	1.000276
13500.0	629.1	7.4	3.0	777.7	054.0	21.9	1.000277
14000.0	617.5	5.9	1.0	767.7	052.1	37.5	1.000278
14500.0	606.1	4.9	0.0	755.0	050.0	70.0	1.000279
15000.0	594.9	2.8	-1.5	73.1	049.5	100.0	1.000275
15500.0	583.8	1.4	-1.6	80.1	048.7	118.0	1.000276
16000.0	572.9	0.1	-1.4	69.6	047.0	119.2	1.000277
16500.0	562.2	-1.0	-1.8	94.6	045.0	100.3	1.000278
17000.0	551.5	-2.0	-2.9	93.0	042.0	98.1	1.000279
17500.0	541.0	-3.0	-4.0	92.6	040.4	99.4	1.000275
18000.0	530.8	-3.9	-4.9	92.9	039.0	99.1	1.000276
18500.0	520.7	-4.9	-5.5	95.7	037.0	70.9	1.000277
19000.0	510.7	-6.1	-6.4	97.3	035.0	56.7	1.000278
19500.0	500.9	-7.3	-7.6	97.9	033.0	51.0	1.000279
20000.0	491.2	-8.1	-9.0	88.0	031.0	49.0	1.000275
20500.0	481.7	-9.0	-9.8	93.5	030.0	49.0	1.000276
21000.0	472.3	-10.0	-11.3	90.6	024.1	37.4	1.000277
21500.0	463.1	-10.4	-13.3	79.1	013.0	24.0	1.000278
22000.0	454.1	-10.3	-15.0	68.2	009.0	21.0	1.000279
22500.0	445.2	-11.4	-15.9	68.0	005.0	21.0	1.000275
23000.0	436.4	-12.5	-16.7	70.0	029.0	54.0	1.000276

STATION ALTITUDE 3412.75 FT. I A.S.L.
21 JULY 02 1015 MDT
ASLNSGNO. 80

Up PLH Alk JUNIA
2120290000
L-29

TABLE-9 cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	SPF-EU. OF GM/CURIC SURFACE METER	WIND DATA DIRECTION CORRELATION	INDEX OF REFRACTION
43500.0	426.8	-13.7	-17.5	72.8	573.7	027.7	5.1
44000.0	419.4	-14.1	-20.4	58.7	563.3	027.4	4.5
44500.0	411.1	-14.5	-22.7	49.5	550.6	026.6	4.5
45000.0	402.9	-15.3	-22.4	54.3	543.6	026.0	5.7
45500.0	394.8	-16.4	-23.0	56.3	536.1	024.5	7.2
46000.0	386.8	-17.6	-24.1	56.8	520.9	023.0	6.6
46500.0	378.0	-18.8	-25.1	57.2	510.7	021.5	9.5
47000.0	371.3	-20.0	-26.2	57.7	510.7	020.0	9.0
47500.0	363.8	-21.2	-27.3	58.1	502.6	018.5	10.1
48000.0	356.4	-22.5	-28.5	58.6	495.0	017.0	10.5
48500.0	349.2	-23.6	-29.3	58.0	487.6	015.0	11.6
29000.0	342.0	-24.3	-31.5	51.1	478.5	014.7	12.7
49500.0	334.9	-25.1	-33.5	45.2	470.2	013.7	13.9
30000.0	327.9	-26.2	-35.2	42.1	462.3	012.3	15.0
30500.0	321.1	-27.4	-37.1	39.1	455.0	010.8	15.8
31000.0	314.4	-28.5	-38.9	35.9	447.0	009.4	17.1
31500.0	307.8	-29.7	-40.8	32.6	440.3	007.9	16.4
32000.0	301.3	-30.9	-42.8	29.7	433.4	006.4	16.5
32500.0	294.9	-32.0	-44.2	26.4	426.0	005.0	16.7
33000.0	288.6	-33.2	-45.4	27.6	419.6	003.6	15.5
33500.0	282.3	-34.3	-46.7	26.9	411.0	002.1	16.2
34000.0	276.3	-35.5	-48.0	26.1	404.9	000.7	15.6
34500.0	270.3	-36.6	-49.6	25.3	398.1	000.1	16.4
35000.0	264.5	-37.8	-50.5	24.6	391.4	000.2	16.5
35500.0	258.8	-39.0	-53.1	20.5**	384.9	000.6	16.7
36000.0	253.1	-40.3	-62.3	7.3**	376.7	000.4	15.8
36500.0	247.6	-41.6	-	-	362.9	000.1	16.0
37000.0	241.9	-42.7	-	-	365.7	001.4	15.6
37500.0	236.5	-43.9	-	-	359.6	002.9	16.7
38000.0	231.1	-45.0	-	-	352.0	006.2	15.5
38500.0	225.8	-46.1	-	-	346.5	006.0	16.2
39000.0	220.7	-47.2	-	-	340.4	005.2	15.8
39500.0	215.7	-48.4	-	-	334.3	004.1	16.5
40000.0	210.9	-49.5	-	-	320.4	002.0	16.6
40500.0	206.1	-50.6	-	-	322.0	001.1	16.7
41000.0	201.4	-51.7	-	-	316.9	000.7	14.2
41500.0	196.7	-53.0	-	-	311.0	000.1	15.5
42000.0	192.0	-54.3	-	-	305.7	000.7	15.0
42500.0	187.5	-55.6	-	-	300.7	000.4	14.2
43000.0	183.0	-56.8	-	-	294.8	000.8	13.2

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE AS USED IN THE INTERPOLATION.

STATION ALTITUDE 34275 FEET MSL
21 JULY 1015 MDT
ASCENSION NO. 60

UPPER AIR DATA
252025006u
E-28

TABLE-9 cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	RELATIVE HUMIDITY PERCENT	DEGREE OF SIGHTING KM015	DEPTH OF SOUND METER	WIND DIRECTION DEGREES (IN)	WIND SPEED KNOTS	INDEX OF REFRACTION
43500.0	179.7	-58.1	289.5	571.5	285.0	12.2	1.000064	
44000.0	174.4	-59.4	284.3	369.0	84.1	12.4	1.000064	
44500.0	170.5	-60.7	279.4	367.0	89.1	12.6	1.000062	
45000.0	169.2	-62.0	274.3	366.1	70.4	12.9	1.000061	
45500.0	164.3	-63.3	269.4	364.4	70.9	13.0	1.000060	
46000.0	159.3	-63.7	265.3	362.9	77.3	12.9	1.000059	
46500.0	154.5	-64.0	257.2	360.5	84.4	13.0	1.000057	
47000.0	150.7	-64.2	251.5	360.1	76.5	13.8	1.000056	
47500.0	147.0	-64.9	245.9	362.4	104.6	15.0	1.000055	
48000.0	144.3	-65.7	240.4	361.2	104.9	15.1	1.000054	
48500.0	139.8	-66.4	235.5	360.1	105.2	15.1	1.000052	
49000.0	139.3	-67.2	230.5	359.1	95.3	14.7	1.000051	
49500.0	132.9	-67.9	225.6	358.1	84.6	14.7	1.000050	
50000.0	129.6	-68.7	220.5	357.0	78.7	14.9	1.000049	
50500.0	120.4	-69.5	216.2	356.0	73.6	15.3	1.000048	
51000.0	125.3	-70.2	211.0	355.0	70.7	16.8	1.000047	
51500.0	120.1	-70.5	206.5	354.6	89.4	16.9	1.000045	
52000.0	117.1	-70.8	201.6	354.2	89.5	21.1	1.000045	
52500.0	114.1	-71.1	196.6	353.0	87.9	23.4	1.000044	
53000.0	111.2	-71.4	192.1	352.4	87.5	25.6	1.000043	
53500.0	108.4	-71.7	187.5	352.4	69.0	25.6	1.000042	
54000.0	105.7	-72.0	182.0	352.0	70.2	25.6	1.000041	
54500.0	102.0	-71.7	176.1	353.0	73.3	26.2	1.000040	
55000.0	100.4	-69.2	171.5	350.4	76.3	26.9	1.000038	
55500.0	97.9	-68.1	166.4	357.9	80.6	28.1	1.000037	
56000.0	95.5	-67.4	161.7	358.8	85.5	29.7	1.000036	
56500.0	93.2	-66.7	157.2	359.8	89.6	30.1	1.000035	
57000.0	90.9	-66.0	152.6	360.7	93.5	28.5	1.000034	
57500.0	88.6	-65.3	146.0	364.7	96.7	26.7	1.000033	
58000.0	86.5	-64.6	144.4	362.0	94.9	24.0	1.000032	
58500.0	84.3	-63.9	140.4	362.7	92.7	21.4	1.000031	
59000.0	82.3	-63.2	136.5	364.0	93.0	21.2	1.000030	
59500.0	80.2	-62.5	132.7	366.4	95.4	20.9	1.000029	
60000.0	78.3	-62.5	129.5	366.5	95.4	21.0	1.000029	
60500.0	76.4	-62.4	126.3	365.7	93.7	21.2	1.000028	
61000.0	74.5	-62.4	122.4	365.6	90.6	21.4	1.000027	
61500.0	72.7	-62.4	120.4	365.6	95.5	21.9	1.000027	
62000.0	71.0	-62.3	117.3	365.7	75.0	22.7	1.000026	
62500.0	69.3	-62.3	114.4	365.7	76.2	23.6	1.000025	
63000.0	67.6	-62.2	111.5	365.8	80.0	24.5	1.000025	

STATION ALTITUDE 3912.75 FT. T MSL
21 JULY 32 1015 MDT
ASCENSION NO. 80

U.P.R. Alt. W.M.A
2020290000
L-28
TABLE-9 cont'd

STATION COORDINATES
32.04927 LAT DEG
106.40591 LONG DEG

GEOMETRICAL ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEPOINT CENTIGRADE	REL.HUM. PERCENT	LENSITY GM/CUBIC METER	WIND SOUND SPEED KNOTS	WIND WATH MILES PER HOUR	INDEX OF REFRACTION
63500.0	63.9	-62.2	-62.1	100.9	565.9	85.1	25.1	1.0000024
64000.0	64.5	-62.1	-62.0	100.2	565.9	87.5	25.7	1.0000024
64500.0	64.8	-62.1	-62.0	100.0	566.0	91.4	26.4	1.0000023
65000.0	61.3	-62.0	-61.9	101.1	566.1	91.3	26.4	1.0000023
65500.0	59.8	-61.2	-61.0	96.3	567.1	91.2	26.4	1.0000022
66000.0	56.4	-60.4	-60.4	95.0	568.2	92.1	26.6	1.0000021
66500.0	57.0	-59.6	-59.6	92.9	569.3	92.5	27.2	1.0000021
67000.0	55.6	-58.8	-58.8	90.4	570.4	94.4	27.7	1.0000020
67500.0	54.3	-58.1	-58.1	87.9	571.5	94.7	28.2	1.0000020
68000.0	52.0	-57.4	-57.4	85.0	572.6	94.6	28.7	1.0000019
68500.0	51.7	-56.8	-56.8	83.3	573.1	95.6	28.3	1.0000019
69000.0	50.5	-56.1	-56.1	81.1	574.0	96.3	27.9	1.0000018
69500.0	49.3	-55.4	-55.4	78.9	574.9	98.7	27.5	1.0000018
70000.0	48.2	-54.8	-54.8	76.9	575.7	102.1	27.5	1.0000017
70500.0	47.1	-54.1	-54.1	74.9	576.9	100.3	27.5	1.0000017
71000.0	46.0	-53.4	-53.4	72.9	577.5	105.9	27.2	1.0000016
71500.0	44.9	-52.8	-52.8	71.0	578.4	105.2	26.9	1.0000016
72000.0	43.9	-52.1	-52.1	69.1	579.2	102.8	26.7	1.0000015
72500.0	42.8	-51.4	-51.4	67.3	580.1	98.9	26.7	1.0000015
73000.0	41.9	-51.5	-51.5	65.0	580.9	96.0	26.8	1.0000015
73500.0	40.9	-51.6	-51.6	64.3	579.9	95.3	27.1	1.0000014
74000.0	39.9	-51.7	-51.7	62.0	579.0	95.0	27.3	1.0000014
74500.0	39.0	-51.8	-51.8	61.4	579.0	97.5	27.5	1.0000014
75000.0	38.1	-51.9	-51.9	60.0	579.0	100.6	27.7	1.0000013
75500.0	37.3	-51.0	-51.0	58.4	580.0	96.6	27.1	1.0000013
76000.0	36.4	-50.0	-50.0	56.0	581.0	95.3	27.3	1.0000013
76500.0	35.6	-49.0	-49.0	53.0	582.0	95.0	27.5	1.0000012
77000.0	34.8	-48.0	-48.0	53.0	583.0	95.0	27.7	1.0000012

STATION ALTITUDE 3412.75 FT, 1 MSL
21 JULY 62
ASCENSION NO. 80

MAINTAINING LEVELS
212024000000
L-28
TABLE-10

GEOMETRIC COORDINATES
32.04927 LAT deg
106.40591 LON deg

PRESSURE (EUPOTENTIAL MILLIBARS	FEET	TEMPERATURE DEGREES CENTIGRADE	AIR DEPOINT PERCENT	RELATIVE HUMIDITY PERCENT	WIND DATA	
					DIRECTION DEGREES (TN)	SPEED KNOTS
1050.0	5058.	24.4	13.6	51.	160.0	3.8
1000.0	6798.	22.0	11.9	53.	106.0	2.4
950.0	8631.	18.9	8.8	52.	23.7	2.9
700.0	10560.	1.5	5.2	57.	29.0	3.9
650.0	12596.	9.2	3.6	60.	52.0	5.6
600.0	14757.	3.5	-7.8	73.	84.2	5.0
550.0	17053.	-2.1	-3.0	93.	98.3	3.2
500.0	19520.	-7.4	-7.7	96.	51.2	3.0
450.0	22195.	-16.7	-15.5	60.	20.7	3.5
400.0	25138.	-15.6	-22.3	50.	90.4	0.1
350.0	28394.	-23.5	-29.3	59.	91.0	11.4
300.0	32042.	-31.1	-43.2	29.	81.7	10.6
250.0	36198.	-41.1	-52.1		85.9	11.7
200.0	41056.	-52.1			43.7	14.6
175.0	43847.	-59.2			62.5	12.3
150.0	46966.	-64.3			96.7	14.0
125.0	50577.	-69.8			71.7	12.5
100.0	54912.	-68.7			76.0	27.0
80.0	59364.	-62.5			93.2	20.9
70.0	62068.	-62.3			77.2	23.2
60.0	65105.	-61.3			91.2	26.4
50.0	68957.	-55.8			96.0	27.7
40.0	73678.	-51.7			95.1	27.3

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3912.75 FEET MSL
21 JULY 12 1325 MDT
ASSEMBLY NO. 81

SIGNIFICANT LEVEL DATA
202000Z
L-23
TABLE-11

GEODIAL COORDINATES
32-39'27" LAT UEG
106-40'59" LON LEG

PRESSURE IN MILLIBARS	GEOMETRIC ALTITUDE IN FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT
883.5	3912.7	35.3	38.0
877.9	4102.3	32.7	17.3
850.0	5054.3	29.0	15.2
761.1	6248.5	21.7	9.6
700.0	10610.9	15.5	0.0
614.5	14184.7	5.6	1.4
581.5	15662.4	1.9	0.7
570.6	16163.9	0.0	0.1
554.7	16968.1	-1.4	-1.0
500.0	19611.0	-6.0	-6.0
476.7	20837.5	-8.0	-10.6
454.4	24057.1	-10.9	-12.3
434.7	23177.1	-11.8	-16.3
406.1	24983.4	-14.8	-21.2
490.0	25260.3	-15.2	-22.4
390.1	25882.2	-16.6	-24.3
385.5	26175.4	-17.1	-29.5
371.7	27071.9	-19.2	-28.0
358.3	27967.3	-21.4	-35.9
351.3	28445.6	-22.1	-29.9
330.0	29948.9	-25.9	-31.7
306.7	31680.8	-30.0	-36.0
300.0	32198.5	-30.4	-39.1
294.3	32646.7	-31.4	-44.6
270.7	34576.3	-36.3	-50.0
257.6	35683.7	-39.8	-53.2
250.0	36374.8	-40.2	-52.0
211.7	40355.8	-49.8	-42.0
200.0	41252.9	-52.9	-21.0
178.5	43666.5	-58.0	-67.3
150.0	47208.8	-63.8	-77.6
136.0	49171.5	-67.7	-60249.7
110.2	53298.3	-72.5	-62.2
100.0	55191.6	-70.4	-62.0
95.5	56100.9	-67.3	-56.8
77.6	60249.7	-65.5	-56.0
70.0	62336.0	-62.2	-56.0
62.3	64737.6	-58.0	-57.0
56.8	66666.0	-57.0	-56.1
50.0	69338.7	-56.1	-56.1

STATION ELEVATION 3912.75 FEET MSL
21 JULY 12 ASCENSIO. NO. 81 1325 MDT

SIGNIFICANT LEVEL DATA
2020290001
L-28

TABLE-11 cont'd

PRESSURE	GEOMETRIC ALTITUDE	TEMPERATURE AIR DEPOINT	REL. HUM. PERCENT
IN MILLIBARS	IN FEET	DEGREES CENTIGRADE	
43.0	72285.5	-53.0	

GEODETIC COORDINATES
32°04'27" LAT DEG
106°40'51" LON DEG

STATION ALTITUDE 3412.75 FEET MSL
21 JULY 12 1325 MDT
ASCENSION NO. 81

UPPER AIR DATA
2020290000
L-28
TABLE-12

GEODETIC COORDINATES
32.69927 LAT LIG
106.40591 LON LIG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	LENS GM/CUBIC METER	SOUND KNOTS	WIND DIRECTION DEGREES (IN) WIND SPEED KNOTS	INDEX OF REFRACTION
3912.7	860.5	15.3	10.8	38.0	980.5	687.4	0.0
4000.0	860.9	34.1	10.1	38.9	989.8	626.0	147.9
4500.0	880.1	31.2	16.4	41.3	983.4	682.4	147.9
5000.0	851.6	29.2	15.5	42.8	973.0	680.1	147.9
5500.0	837.0	28.0	14.4	43.4	961.1	678.0	147.9
6000.0	822.6	26.8	13.5	43.9	946.5	676.2	146.0
6500.0	809.5	25.7	12.7	44.4	936.1	675.0	145.5
7000.0	794.7	24.6	11.8	44.8	923.6	674.4	137.9
7500.0	781.1	23.4	10.9	45.3	911.7	673.0	126.5
8000.0	767.7	22.3	10.0	45.8	899.0	671.0	94.6
8500.0	754.3	21.0	9.2	46.7	886.0	670.2	64.5
9000.0	741.1	19.7	8.5	48.2	876.5	670.6	34.6
9500.0	728.1	18.4	7.7	49.7	865.2	667.0	0.3
10000.0	715.5	17.1	6.9	51.2	854.0	665.5	99.5
10500.0	702.8	15.8	6.2	52.7	843.0	663.9	73.0
11000.0	690.1	14.4	5.6	55.2	831.9	662.3	72.9
11500.0	677.0	13.0	5.0	58.0	820.9	660.7	71.3
12000.0	665.4	11.7	4.3	60.8	810.1	659.0	66.2
12500.0	653.4	10.3	3.7	63.6	799.5	657.4	60.0
13000.0	641.6	8.9	3.0	66.4	789.0	655.7	50.1
13500.0	630.0	7.5	2.2	69.2	778.7	654.1	34.3
14000.0	618.7	6.1	1.4	72.0	766.5	652.4	26.0
14500.0	607.5	4.8	1.1	77.0	758.0	650.9	25.3
15000.0	596.1	3.6	1.0	83.5	747.3	649.4	22.6
15500.0	585.0	2.3	0.8	89.9	736.9	647.9	43.0
16000.0	574.1	0.6	-0.2	91.0	727.7	645.9	21.3
16500.0	564.4	-6	-1.2	95.9	717.3	644.3	34.6
17000.0	554.7	-1.6	-2.0	96.9	706.4	642.2	34.0
17500.0	542.2	-2.4	-2.9	96.3	695.3	642.1	34.6
18000.0	531.9	-3.3	-3.8	95.6	684.3	641.1	1.4
18500.0	521.6	-4.1	-4.8	95.2	673.5	640.0	18.4
19000.0	511.9	-5.0	-5.7	94.7	662.9	638.9	25.9
19500.0	501.1	-5.8	-6.6	94.1	652.5	637.9	21.4
20000.0	492.5	-6.6	-8.1	93.6	642.1	636.0	20.4
20500.0	483.0	-7.4	-9.7	93.9	631.0	635.6	16.0
21000.0	473.7	-8.2	-11.0	91.2	621.9	634.6	11.2
21500.0	464.5	-9.6	-11.6	84.9	612.6	633.1	19.2
22000.0	455.4	-10.8	-12.3	88.6	603.5	631.7	8.0
22500.0	446.5	-11.3	-13.8	81.1	592.9	631.0	91.4
23000.0	437.8	-11.7	-15.6	72.2	582.5	630.5	1.5

STATION ALTITUDE 3,325 FT. + SSL
21 JULY 32
ASCENSIVE NO. 61

UPLR Alt 3,325
26202900000
TABLE-12 cont'd

STATION COORDINATES
52.09927 LAT DEG
106.40591 LON DEG

GEOMETRIC ALTITUDE	PRESSURE	TEMPERATURE	REL. HUM. PERCENT	SPECIFIC HEAT	WIND DATA	INDEX
MSL FEET	MM	DEGREES CENTIGRADE	DEGREES	GM/CUBIC METER	DIRECTION	OF
2,600.0	429.1	-12.4	-17.2	66.9	572.0	1.4
2,600.0	429.1	-13.2	-18.6	63.7	565.1	1.000136
2,4500.0	414.4	-14.1	-20.1	60.5	554.0	2.1
2,5000.0	404.2	-14.9	-21.6	56.8	544.1	1.000130
2,5500.0	390.2	-15.7	-23.1	52.8	535.7	3.6
2,6000.0	380.2	-16.6	-26.2	43.8	527.2	7.2
2,6500.0	360.4	-17.9	-29.1	36.6	518.9	10.0
2,7000.0	352.8	-19.0	-28.6	42.2	510.6	10.9
2,7500.0	346.2	-20.3	-31.0	37.3	502.9	11.7
2,8000.0	337.8	-21.4	-33.6	32.2	495.0	11.0
2,8500.0	329.5	-22.2	-29.9	49.3	488.4	10.0
2,9000.0	323.3	-23.5	-30.5	52.3	478.6	11.9
2,9500.0	316.2	-24.8	-31.1	55.3	471.3	11.1
3,0000.0	310.3	-26.0	-31.8	57.8	464.0	1.000117
3,0500.0	302.4	-27.2	-33.3	55.8	456.0	1.000115
3,1000.0	295.7	-28.4	-34.8	53.8	449.1	1.000112
3,1500.0	289.1	-29.6	-36.3	51.7	441.9	1.000111
3,2000.0	283.6	-30.2	-38.2	45.5	433.8	12.1
3,2500.0	279.2	-31.1	-42.7	30.6	426.1	10.6
3,3000.0	275.8	-32.3	-45.9	24.3	419.4	10.5
3,3500.0	272.6	-33.6	-47.4	23.2	412.4	10.4
3,4000.0	270.5	-34.8	-48.9	22.2	405.7	10.3
3,4500.0	271.6	-36.1	-50.4	21.2	399.1	10.2
3,5000.0	269.7	-37.6	-51.6	21.4	393.0	10.1
3,5500.0	268.9	-39.2	-52.8	21.8	387.0	10.0
3,6000.0	264.2	-40.0	-58.3	11.9**	379.6	9.9
3,6500.0	245.6	-40.5			372.3	9.8
3,7000.0	243.0	-41.8			366.0	9.7
3,7500.0	237.5	-43.2			359.6	9.6
3,8000.0	232.2	-44.5			353.7	9.5
3,8500.0	227.0	-45.8			347.6	9.4
3,9000.0	221.9	-47.1			341.9	9.3
3,9500.0	216.9	-48.4			336.6	9.2
4,0000.0	212.0	-49.7			330.0	9.1
4,0500.0	207.2	-51.0			324.6	9.0
4,1000.0	202.4	-52.3			319.2	8.9
4,1500.0	197.7	-53.4			315.4	8.8
4,2000.0	193.0	-54.5			307.5	8.7
4,2500.0	189.5	-55.5			301.7	8.6
4,3000.0	184.0	-56.6			296.1	8.5

** AT LEAST ONE SUMMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3912.75 FEET MSL
21 JULY 02 1325 MDT
ASCENSIO NO. 81

UPPER AIR DATA
2020240008L
L-28

TABLE E-12 cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³	SHEDD METER	SHEDD KNOTS	WIND DATA DIR. (DEG) LEFFLES (IN)	WIND SPEED KNOTS	IN-LX UP	REFRACTION
43500.0	179.7	-57.6		290.3	371.9	67.3	12.7	1.000065		
44000.0	175.4	-58.5		284.6	370.7	79.6	13.0	1.000063		
44500.0	171.2	-59.4		279.0	369.6	75.0	13.7	1.000062		
45000.0	167.1	-60.2		273.3	368.5	79.2	14.6	1.000061		
45500.0	163.0	-61.0		267.7	367.4	83.0	15.9	1.000060		
46000.0	159.1	-61.8		262.3	366.3	87.0	16.0	1.000058		
46500.0	155.3	-62.6		257.0	365.2	92.0	16.2	1.000057		
47000.0	151.5	-63.5		251.7	364.1	96.2	16.2	1.000056		
47500.0	147.8	-64.4		246.7	362.9	99.6	16.3	1.000055		
48000.0	144.2	-65.4		241.6	361.6	97.5	14.8	1.000054		
48500.0	140.6	-66.4		236.9	360.2	94.4	13.3	1.000053		
49000.0	137.2	-67.4		232.2	358.9	87.9	11.3	1.000052		
49500.0	133.7	-68.1		227.2	357.9	76.4	9.5	1.000051		
50000.0	130.4	-68.7		222.1	357.1	76.0	10.9	1.000049		
50500.0	127.1	-69.2		217.1	356.3	75.7	12.9	1.000048		
51000.0	123.9	-69.8		212.3	355.5	76.3	17.0	1.000047		
51500.0	120.8	-70.4		207.5	354.7	76.9	21.0	1.000046		
52000.0	117.7	-71.0		202.9	353.9	77.4	24.8	1.000045		
52500.0	114.8	-71.6		198.4	353.1	78.0	27.0	1.000044		
53000.0	111.9	-72.2		193.9	352.3	77.0	27.8	1.000043		
53500.0	109.1	-72.3		189.1	352.2	77.1	27.3	1.000042		
54000.0	106.3	-71.7		185.8	352.9	77.3	27.1	1.000041		
54500.0	103.6	-71.2		178.7	352.7	79.0	27.0	1.000040		
55000.0	101.0	-70.6		175.7	354.4	81.0	27.2	1.000039		
55500.0	98.5	-69.3		168.3	356.0	82.0	26.3	1.000038		
56000.0	96.0	-68.0		164.7	356.2	95.9	29.6	1.000036		
56500.0	93.6	-67.6		158.3	359.2	97.0	28.9	1.000035		
57000.0	91.3	-66.9		154.2	359.0	99.4	27.8	1.000034		
57500.0	89.0	-66.7		150.2	359.0	98.3	25.3	1.000033		
58000.0	86.8	-66.5		146.4	360.1	95.6	22.2	1.000032		
58500.0	84.7	-66.3		142.6	360.4	92.0	20.1	1.000031		
59000.0	82.6	-66.0		138.4	360.7	92.4	19.9	1.000030		
59500.0	80.6	-65.8		135.4	360.9	92.0	19.9	1.000029		
60000.0	78.6	-65.6		131.9	361.4	91.0	21.6	1.000029		
60500.0	76.6	-65.1		128.3	361.9	90.4	23.3	1.000029		
61000.0	74.8	-64.3		124.7	362.0	90.4	25.1	1.000028		
61500.0	73.0	-63.5		121.4	362.1	91.0	26.9	1.000027		
62000.0	71.2	-62.7		117.6	362.1	95.3	26.2	1.000026		
62500.0	69.4	-61.9		114.5	362.2	101.0	29.2	1.000025		
63000.0	67.8	-61.0		111.3	367.4	105.4	30.1	1.000025		

STATION ALTITUDE 3912.75 FT. 1 mSL
21 JULY 1325 MDT
ASCENSION NO. 81

U.P. AIR. 51A
20230001
E-28

TABLE-12 cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SILENCE JULIAN KNOTS	WIND DATA MIRATION KNOTS EAST (EIN)	WIND SPEED KNOTS	INFLUX OF REFRACTION
6500.0	100.2	-60.2	99.9	1.0802	306.4	106.4	29.9	1.000024
6400.0	104.6	-59.3	105.2	369.7	107.6	29.7	1.000023	
64500.0	102.0	-58.4	102.4	370.9	106.3	29.1	1.000023	
65000.0	101.5	-57.9	99.6	371.0	104.2	28.5	1.000022	
65500.0	100.1	-57.6	97.1	372.0	102.1	27.8	1.000022	
66000.0	99.6	-57.3	94.7	372.3	101.4	26.7	1.000021	
66500.0	97.0	-57.1	92.3	372.6	100.3	25.7	1.000021	
67000.0	95.9	-56.9	90.0	372.9	99.1	25.8	1.000020	
67500.0	94.6	-56.7	87.9	373.1	97.6	26.5	1.000020	
68000.0	93.5	-56.6	85.7	373.4	96.7	27.3	1.000019	
68500.0	92.0	-56.4	83.6	373.6	96.1	27.7	1.000019	
69000.0	90.8	-56.2	81.0	373.8	95.6	28.1	1.000018	
69500.0	89.6	-55.9	79.6	374.2	95.2	27.4	1.000018	
70000.0	88.5	-55.4	77.5	374.9	95.1	26.3	1.000017	
70500.0	87.3	-54.9	75.5	375.6	95.5	26.7	1.000017	
71000.0	86.2	-54.4	73.6	376.3	95.0	26.0	1.000016	
71500.0	85.1	-53.8	71.7	376.9	94.7	25.7	1.000016	
72000.0	84.1	-53.3	69.9	377.6	94.4	25.4	1.000016	

VENTS COORDINATES
32.09927 LAT deg
106.40591 LONG deg

STATION ALTITUDE 3912.75 FEET MSL
21 JULY 02 ASCENSION NO. 81 1325 MDT

MANDATORY LEVELS
2020290001
L-23

TABLE-13

PRESSURE (EOPOTENTIAL MILLIBARS FELT	TEMPERATURE DEGREES CENTIGRADE	RELATIVE HUMIDITY PERCENT	WIND DATA GUSTS (TN) KNOTS
850.0	5051.	29.0	15.2 42° 147.9 3.0
800.0	6812.	25.0	12.1 45° 140.3 6.5
750.0	8659.	20.6	9.0 47° 60.2 5.7
700.0	10601.	15.5	6.0 55° 75.6 0.0
650.0	12646.	9.9	3.5 64° 59.1 7.5
600.0	14609.	4.0	1.1 61° 53°/ 7.8
550.0	17110.	-1.1	-2.2 97° 52°/ 5.0
500.0	19584.	-6.0	-6.0 94° 55°/ 5.4
450.0	22269.	-11.1	-13.2 85° 87.9 2.2
400.0	25218.	-15.2	-22.4 94° 94.4 9.0
350.0	28483.	-22.3	-30.0 50° 100°/ 14.1
300.0	32134.	-30.4	-39.1 42° 80°/ 17.0
250.0	36295.	-40.2	-49.2 50°/ 14.4
200.0	41153.	-52.9	-62.9 92.4 16.9
175.0	43941.	-58.6	-70.4 79.4 13.1
150.0	47081.	-63.8	-77.5 97.5 16.2
125.0	50691.	-69.6	-84.0 70.0 15.2
100.0	55021.	-70.4	-84.3 84.3 27.5
80.0	59441.	-65.8	-81.0 91.0 20.3
70.0	62122.	-62.2	-75.9 95.9 26.6
60.0	65286.	-57.6	-70.1 102.1 27.8
50.0	69077.	-56.1	-65.3 95.3 27.6

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4010.40 FEET MSL
21 JULY 62 1352 MDT
ASSEMBLAGE NO. 19

SIGNIFICANT LEVEL DATA
2h202±0015
W 30
TABLE-14

GEODIAL COORDINATES
32° 00' 49" LAT U.S.
106° 44' 7" LON U.S.

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE DEGREES CENTIGRADE	AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
980.7	4010.4	35.0	6.7	20.0
850.0	5058.9	30.1	9.1	27.0
772.3	7836.0	22.7	8.4	40.0
700.0	10612.8	15.3	3.0	40.0
570.3	16174.7	0.0	-0.0	94.0
543.4	17447.1	-1.3	-4.0	82.0
500.0	19517.6	-5.0	-0.9	74.0
458.7	21829.2	-9.0	-14.0	71.0
441.2	22816.7	-10.3	-17.0	55.0
420.0	24022.2	-13.3	-24.0	40.0
400.0	25274.3	-16.0	-21.0	32.0
376.6	26748.8	-18.6	-30.0	34.0
360.6	27822.0	-21.3	-26.7	31.0
348.7	28633.9	-23.3	-33.0	38.0
300.0	32200.4	-31.4	-30.7	59.0
283.5	33511.8	-34.3	-47.0	26.0
275.3	34185.5	-36.1	-50.0	22.0
250.0	36365.9	-41.3		
200.0	41234.6	-52.6		
193.6	41922.8	-55.1		
188.7	42462.0	-55.4		
150.0	47185.9	-64.6		
120.5	50573.1	-70.1		
112.9	52793.0	-72.2		
109.9	53316.9	-71.5		
106.1	54005.4	-69.9		
100.0	55169.4	-69.0		
76.0	62319.9	-62.0		
50.0	69291.4	-56.0		
30.2	74448.2	-52.5		

STATION ALTITUDE 4010.40 FEET MSL
21 JULY 12 1352 mDT
ASALENSK NO. 19

UPL: ALK UNIT
202020014
NW 30
T 35E-15

LE GOUVERNEMENT COORDONNE LES

GEOMETRIC ALTITUDE HSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWEPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT		DENSITY OF CUBIC METER		SPEED OF WIND KNOTS		WIND DATA LIGHTS (IN)		INDEX OR REFRACTION	
			60.7	20.0	990.6	685.6	685.6	981.6	685.1	117.5	0.4	1.000266
4010.4	880.7	35.0	60.7	23.3	981.6	685.1	117.5	0.3	1.000265			
4500.0	860.2	32.7	90.0	23.3	972.5	680.5	117.5	0.6	1.000264			
5000.0	851.7	30.4	90.1	26.6	960.4	675.9	117.5	0.9	1.000262			
5500.0	831.2	28.9	90.1	29.1	946.0	677.4	117.5	1.2	1.000260			
6000.0	822.8	27.6	90.1	31.4	935.9	675.9	119.9	1.2	1.000257			
6500.0	808.8	26.3	90.0	33.7	924.0	674.4	122.0	1.0	1.000255			
7000.0	794.9	24.9	89.9	36.1	912.4	672.9	125.2	0.8	1.000252			
7500.0	781.3	23.6	89.6	38.4	906.0	671.4	0.5	1.4	1.000248			
8000.0	767.8	22.3	89.2	40.4	889.0	669.6	0.6	2.6	1.000244			
8500.0	754.4	20.9	79.3	41.4	877.6	666.2	0.5	3.1	1.000238			
9000.0	741.1	19.6	69.6	42.5	866.3	666.2	70.0	3.2	1.000234			
9500.0	728.1	18.3	59.7	43.6	856.0	666.0	0.7	3.7	1.000229			
10000.0	715.4	16.9	49.6	44.7	845.2	665.0	0.4	4.4	1.000225			
10500.0	702.8	15.6	49.0	45.8	834.2	663.4	0.4	5.1	1.000222			
11000.0	690.1	14.2	39.6	49.3	832.0	661.9	0.4	5.7	1.000219			
11500.0	677.5	12.9	35.7	53.7	821.5	660.3	0.4	6.0	1.000217			
12000.0	665.1	11.5	35.5	58.0	810.4	658.7	0.4	6.1	1.000215			
12500.0	652.0	10.1	30.2	62.3	799.5	657.1	0.3	6.5	1.000212			
13000.0	641.1	8.7	29.9	66.6	780.7	656.2	0.2	7.0	1.000208			
13500.0	629.4	7.4	24.4	70.9	770.2	655.9	0.2	7.5	1.000205			
14000.0	617.9	6.0	1.9	75.2	767.6	652.3	0.2	8.0	1.000202			
14500.0	606.6	4.6	1.4	79.5	757.0	650.0	0.1	8.5	1.000199			
15000.0	595.5	3.2	0.4	83.9	747.5	649.0	0.1	9.0	1.000195			
15500.0	584.7	1.9	0.1	86.2	737.7	647.5	0.2	9.5	1.000192			
16000.0	574.0	0.5	0.6	92.5	727.4	645.7	0.2	10.0	1.000189			
16500.0	563.3	-0.3	-1.6	90.9	716.7	644.0	0.2	10.5	1.000187			
17000.0	552.7	-0.8	-2.8	86.2	704.7	642.4	0.1	11.0	1.000182			
17500.0	542.3	-1.4	-4.1	81.6	693.0	640.2	0.2	11.5	1.000178			
18000.0	532.0	-2.2	-5.2	80.0	682.1	638.7	0.2	12.0	1.000173			
18500.0	521.9	-3.1	-6.4	78.1	671.4	634.1	0.2	12.5	1.000169			
19000.0	512.0	-3.9	-7.5	76.3	660.6	634.0	0.2	13.0	1.000165			
19500.0	502.3	-4.8	-8.6	74.4	650.5	630.7	0.2	13.5	1.000162			
20000.0	492.6	-5.6	-9.6	73.5	640.9	627.7	0.2	14.0	1.000158			
20500.0	483.1	-6.9	-11.0	72.8	630.9	626.0	0.2	14.5	1.000155			
21000.0	473.8	-8.0	-12.1	72.1	621.3	623.0	0.2	15.0	1.000151			
21500.0	464.6	-9.1	-13.3	71.4	611.4	623.0	0.2	15.5	1.000148			
22000.0	455.6	-9.9	-14.6	68.2	601.9	623.6	0.2	16.0	1.000145			
22500.0	446.7	-10.1	-16.4	60.1	590.9	624.2	0.2	16.5	1.000142			
23000.0	438.0	-10.8	-18.5	52.7	580.8	621.4	0.2	17.0	1.000137			
23500.0	429.4	-12.0	-21.0	0.0	572.5	626.0	0.2	17.5	1.000134			

STATION ALTITUDE 4610.40 FT. T MSL
21 JULY 02 191352 PDT
ASSTENSIUN NO. 19

UPPLR AIR LUMIA
2020220015
14 30

TABLE-15 cont'd

GEOMETRIC PRESSURE ALTITUDE 455 FEET	TEMPERATURE AIR DEPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT	LENSITY SURE GM/CUBIC METER	RELATIV DEGREES KNOTS	WIND DIA KNOTS	SPED KNOTS	INDEX OF REFRACTION
4000.0	421.0	-13.2	-23.9	40.3	563.8	626.3	93.1
44500.0	412.6	-14.3	-22.6	48.4	554.9	627.0	94.6
48000.0	404.4	-15.4	-21.9	57.2	546.1	625.7	94.6
51500.0	396.4	-16.4	-22.8	57.7	537.3	621.0	94.3
55000.0	388.4	-17.3	-25.6	48.2	528.4	623.4	94.4
58500.0	380.6	-18.2	-28.7	38.7	519.7	622.3	94.7
62000.0	372.9	-19.2	-29.9	38.9	511.4	620.9	95.2
65500.0	365.4	-20.5	-29.1	45.9	503.5	619.4	99.5
69000.0	358.0	-21.7	-29.7	48.1	495.7	617.9	103.6
72500.0	350.6	-23.0	-32.7	40.1	486.0	616.3	106.3
76000.0	343.4	-24.1	-33.6	40.2	480.2	614.9	108.4
79500.0	336.2	-25.3	-34.1	43.1	472.3	612.3	105.3
83000.0	329.2	-26.4	-34.5	46.0	464.6	612.1	105.4
86500.0	322.3	-27.5	-34.9	49.0	457.0	610.7	102.4
90000.0	315.0	-28.7	-35.4	51.9	449.5	609.2	101.4
93500.0	309.0	-29.8	-35.9	54.9	442.2	607.6	100.5
97000.0	302.5	-30.9	-36.5	57.8	435.0	606.4	97.7
100500.0	296.1	-32.1	-38.7	51.5	427.9	605.0	91.5
104000.0	290.8	-33.2	-42.3	38.9	420.0	603.0	84.4
107500.0	285.6	-34.3	-46.9	26.3	413.0	602.2	72.9
111000.0	279.5	-35.6	-49.2	23.1	407.0	600.5	64.3
114500.0	273.3	-36.9	-52.0	18.8**	400.2	598.9	61.0
118000.0	267.0	-38.0	-55.6	13.6**	393.5	597.4	58.7
121500.0	260.8	-39.2	-60.1	8.7**	386.8	595.6	62.0
125000.0	254.1	-40.4	-67.4	3.7**	380.3	594.3	66.9
128500.0	247.5	-41.6			373.0	592.6	66.9
132000.0	242.0	-42.8			367.0	591.0	67.4
135500.0	237.3	-44.0			360.0	589.0	67.7
139000.0	232.0	-45.2			354.4	588.2	69.1
142500.0	226.7	-46.3			346.0	586.7	72.4
146000.0	221.6	-47.5			342.1	585.2	76.9
149500.0	216.5	-48.7			336.0	583.7	82.5
153000.0	211.6	-49.9			330.4	582.1	90.4
156500.0	206.8	-51.1			324.5	580.0	96.0
160000.0	202.2	-52.2			316.0	579.0	100.3
163500.0	197.5	-53.7			313.0	577.4	102.0
167000.0	192.9	-55.1			306.4	575.4	96.4
170500.0	188.4	-55.5			301.4	574.0	81.6
174000.0	183.8	-56.4			295.5	573.0	85.3
177500.0	179.4	-57.4			289.7	572.2	86.4

** AT LEAST ONE ASSUMED LATITIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4010.0' FT MSL
21 JULY 1972 1352 MDT
ASSEMBLION NO. 19

UPPER AIR DATA
2020220819
NW 30
TABLE-15 cont'd

GEODDITIC COORDINATES
32.88497 LAT DEG
106.49714 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	INTENSITY GM/CUBIC METER	WIND DATA DIRECTION DEGREES (10)	WIND SPEED KNOTS	INDEX OF REFRACTION
44000.0	175.1	-58.4		286.1	570.4	55.4	1.000003
44500.0	170.9	-59.4		278.5	389.6	62.3	1.000002
45000.0	166.8	-60.3		273.1	368.3	68.3	1.000001
45500.0	162.8	-61.3		267.7	567.0	74.6	1.000000
46000.0	158.9	-62.3		262.3	365.7	60.6	1.000000
46500.0	155.1	-63.3		257.9	564.4	85.6	1.000000
47000.0	151.4	-64.2		252.4	563.1	89.9	1.000000
47500.0	147.6	-65.1		247.4	361.9	92.9	1.000000
48000.0	144.0	-65.9		242.0	560.8	96.1	1.000000
48500.0	140.4	-66.7		237.0	559.7	97.0	1.000000
49000.0	136.9	-67.5		232.0	358.6	96.0	1.000000
49500.0	133.5	-68.4		227.1	557.5	82.4	1.000000
50000.0	130.2	-69.2		222.4	556.4	60.0	1.000000
50500.0	127.0	-70.0		217.7	555.3	51.0	1.000000
51000.0	125.8	-70.5		214.8	554.6	56.9	13.4
51500.0	120.6	-71.0		207.9	553.9	65.4	1.000000
52000.0	117.6	-71.4		203.1	553.3	68.6	22.8
52500.0	114.6	-71.9		198.4	552.6	74.1	24.0
53000.0	111.7	-71.9		193.4	552.0	75.7	25.2
53500.0	108.9	-71.1		187.7	551.4	76.0	1.000000
54000.0	106.1	-69.9		181.9	550.8	77.7	26.1
54500.0	103.5	-69.8		177.2	550.2	80.6	27.0
55000.0	100.9	-69.6		172.7	550.0	83.3	27.0
55500.0	98.4	-69.2		168.1	550.5	66.3	1.000000
56000.0	95.9	-68.7		163.3	557.0	69.3	31.4
56500.0	93.6	-68.2		159.0	557.1	90.3	1.000000
57000.0	91.3	-67.7		154.7	556.9	91.2	28.5
57500.0	89.0	-67.1		150.3	559.2	92.0	1.000000
58000.0	86.8	-66.6		146.4	559.9	92.0	30.3
58500.0	84.7	-66.1		142.5	560.6	93.3	1.000000
59000.0	82.6	-65.5		138.6	561.3	94.3	21.4
59500.0	80.6	-65.0		134.8	562.1	95.4	20.9
60000.0	78.6	-64.5		131.4	562.0	96.4	21.3
60500.0	76.7	-63.9		127.6	563.5	97.3	21.9
61000.0	74.8	-63.4		124.6	564.2	98.2	22.1
61500.0	72.9	-62.9		120.8	564.9	99.0	21.6
62000.0	71.1	-62.3		117.5	565.0	100.7	21.3
62500.0	69.4	-61.8		114.4	566.2	100.4	21.5
63000.0	67.7	-61.4		111.3	566.3	111.4	21.9
63500.0	66.1	-61.0		108.6	567.0	111.7	22.5

STATION ALTITUDE 4010.40 FT. 1 MSL
 21 JULY 32 1352 MDT
 ASSEMBLY NO. 19

UPPLR AIR DATA
 2020220019
 N.W. 30

TABLE-15 cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT	SHLD. OF GM/CUBIC METER	SHLD. OF SOUND METER	WIND DIRECTION DEGREES (IN)	WIND SPEED KNOTS	INDEX OF REFRACTION
04000.0	64.5	-60.6			105.8	566.0	111.6	23.0	1.000024
04500.0	63.0	-60.1			103.0	566.6	107.6	23.6	1.000023
05000.0	61.5	-59.7			100.4	569.2	101.1	24.4	1.000022
05500.0	60.0	-59.3			97.8	566.8	195.0	25.5	1.000022
06000.0	59.6	-58.8			95.3	570.3	92.1	26.7	1.000021
06500.0	57.2	-58.4			92.8	570.9	89.5	28.0	1.000021
07000.0	55.8	-58.0			90.4	571.5	88.6	28.4	1.000020
07500.0	54.5	-57.5			88.1	572.0	89.6	28.1	1.000020
08000.0	53.2	-57.1			85.8	572.6	90.4	27.8	1.000019
08500.0	51.9	-56.7			83.6	573.2	91.7	27.6	1.000019
09000.0	50.7	-56.3			81.4	573.8	93.0	27.4	1.000018
09500.0	49.5	-55.9			79.4	574.3	94.4	27.1	1.000018
10000.0	48.4	-55.5			77.4	574.7	96.1	26.8	1.000017
70500.0	47.2	-55.2			75.5	575.2	97.9	26.3	1.000017
71000.0	46.1	-54.8			73.6	575.6	100.9	24.9	1.000016
71500.0	45.1	-54.5			71.6	576.1	104.3	23.6	1.000016
72000.0	44.0	-54.2			70.0	576.5	92.0	22.4	1.000016
72500.0	43.0	-53.8			68.3	577.0	69.7	24.4	1.000015
73000.0	42.0	-53.5			66.6	577.4			1.000015
73500.0	41.0	-53.1			64.9	577.6			1.000014
74000.0	40.0	-52.8			63.3	578.3			1.000014

STATION ALTITUDE 4010.40 FEET MSL
21 JULY 02 1352 MDT
ASCENSION NO. 19

MANDATORY LEVELS
2020Z 2001Z
14W 30

GEODETIC COORDINATES
32.00497 LAT DEG
106.49714 LONG DEG

TABLE-16

PRESSURE (EOPOTENTIAL MILLIBARS	FEET	PRESSURE (EOPOTENTIAL DEGREES	TEMPERATURE AIR DEPOINT CENTIGRADE	REL.HUM. PERCENT	DIR.HUM. DEGREES TN)	WIND DATA SPD KNOTS
850.0	5055.	30.1	9.1	27.	117.5	0.6
800.0	6818.	25.4	8.9	35.	120.0	1.1
750.0	8664.	20.5	7.1	42.	64.1	5.0
700.0	10603.	15.5	5.5	45.	65.0	4.6
650.0	12646.	9.6	3.2	63.	64.0	0.2
600.0	14808.	5.8	1.0	62.	54.9	7.6
550.0	17108.	-1.0	-3.2	65.	14.9	3.4
500.0	19590.	-25.0	-6.9	74.	79.0	7.5
450.0	22282.	-10.0	-15.7	63.	51.0	3.1
400.0	25232.	-16.0	-21.6	62.	94.2	5.8
350.0	28492.	-23.1	-35.0	39.	106.7	11.5
300.0	32136.	-31.4	-36.7	59.	95.4	12.8
250.0	36286.	-41.3			66.0	11.0
200.0	41134.	-52.6			101.4	17.6
175.0	43923.	-58.4			55.4	12.5
150.0	47058.	-64.6			91.1	17.0
125.0	50660.	-70.3			56.2	16.0
100.0	54999.	-69.6			84.2	30.5
80.0	59415.	-64.8			95.0	20.9
70.0	62106.	-62.0			104.0	21.4
60.0	65254.	-59.3			95.4	25.4
50.0	69030.	-56.0			93.7	27.3
40.0	73721.	-52.6				

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 5912.75 FEET MSL
21 JULY 02 1623 MDT
ASCHENAU, NO. 82

SIGHTS
21 JULY 02
ASCHENAU, NO. 82
TABLE-17

WEATHER COORDINATES
32.69927 LAT UG
106.40591 LON UG

PRESSURE ALTIMETRIC MILLIBARS MSL FEET	ALTITUDE DEGREES CENTIGRADE	TEMPERATURE DEGREES CENTIGRADE	WIND DIRECTION PERCENT
881.9	3912.7	34.7	16.4
874.0	4180.7	33.1	16.9
850.0	5003.5	30.1	15.0
788.1	7204.3	24.4	11.0
700.0	10564.6	15.2	5.1
650.0	12276.3	11.5	1.7
607.2	14464.8	5.4	7.4
581.9	15605.1	3.0	3.0
527.3	15201.2	-3.7	1.4
510.5	19042.5	-4.9	5.5
500.0	19580.9	-5.2	9.0
472.5	21035.9	-8.2	-11.0
457.2	21874.7	-10.1	-14.3
449.8	22280.6	-10.5	-15.2
411.1	24536.1	-18.0	-19.4
400.0	25213.0	-15.7	-21.7
385.0	26158.1	-18.0	-22.0
364.5	27498.4	-20.4	-31.4
331.5	29788.4	-25.5	-34.8
300.0	32145.1	-31.4	-37.6
292.4	32741.5	-33.0	-39.4
280.5	33717.2	-34.7	-43.3
250.0	36312.5	-41.3	
200.0	41169.3	-53.9	
181.0	43262.7	-57.9	
176.3	45809.2	-58.1	
163.7	46334.2	-62.2	
150.0	47101.6	-65.3	
124.6	50741.0	-71.3	
111.5	52041.5	-70.8	
107.9	53585.8	-69.2	
104.5	54215.0	-70.4	
100.0	55074.4	-69.5	
91.2	56361.7	-67.1	
77.0	60290.9	-65.2	
76.0	62224.3	-61.6	
54.3	67455.2	-58.9	
50.0	69179.3	-55.5	
45.0	72379.5	-52.4	

STATION ALTITUDE 3412.75 FEET MSL
21 JULY 02 1623 MDT
ASSENCEW. NO. 02

UPPER AIR DATA
L-23
2020250000C

TABLE-18

GEOMETRIC COORDINATES
32.89927 LAT DEG
106.40591 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	LENSUM. CM/CUBIC METER	SHIELDING 50000 KILOIS	WIND DIRECTION DEGREES (IN)	WIND SPEED KNOTS	INFLUX OR REFLECTION
3912.7	881.9	34.7	16.1	33.0	990.1	080.2	90.0	4.1
4000.0	879.3	34.2	16.4	34.6	988.7	080.7	94.1	4.1
4500.0	864.6	31.9	16.5	39.6	979.0	080.3	145.0	4.6
5000.0	850.1	30.1	15.8	42.0	966.7	080.2	151.0	5.6
5500.0	835.6	28.5	14.7	42.2	956.7	079.8	141.4	6.9
6000.0	821.4	27.5	13.6	42.5	944.8	078.4	147.4	6.8
6500.0	807.4	26.2	12.5	42.7	933.1	076.4	152.0	6.6
7000.0	793.7	24.9	11.5	42.9	921.0	074.8	155.0	6.0
7500.0	779.9	23.6	10.5	43.7	910.0	073.2	153.4	5.4
8000.0	765.3	22.9	9.7	44.4	896.4	071.3	148.4	4.5
8500.0	752.9	20.9	8.9	46.1	887.0	069.9	141.3	3.6
9000.0	739.7	19.5	8.0	47.3	875.8	068.3	128.0	2.7
9500.0	726.8	18.1	7.1	48.5	864.7	066.0	115.1	2.2
10000.0	714.1	16.7	6.2	49.7	853.8	063.0	102.9	2.0
10500.0	701.6	15.4	5.3	50.8	842.0	060.3	107.3	2.5
11000.0	689.1	14.3	4.3	51.0	831.4	058.0	107.0	3.5
11500.0	676.8	13.2	3.2	51.0	819.8	056.6	99.0	5.0
12000.0	664.0	12.1	2.3	51.0	808.4	054.9	91.0	6.7
12500.0	652.7	10.9	1.6	52.5	797.3	052.9	80.9	6.7
13000.0	640.8	9.5	1.1	56.0	786.7	050.2	89.0	6.3
13500.0	629.1	8.1	0.7	59.4	776.3	048.0	50.7	5.2
14000.0	617.7	6.7	0.1	62.8	766.0	046.9	29.4	5.4
14500.0	606.4	5.3	-0.5	65.8	755.8	044.3	15.3	6.4
15000.0	595.2	4.3	-2.0	63.7	744.9	042.0	8.0	7.7
15500.0	584.2	3.2	-3.5	61.5	734.1	040.6	0.5	8.4
16000.0	573.2	2.0	-5.9	65.1	723.0	047.2	0.3	8.3
16500.0	562.5	0.7	-4.1	70.3	713.4	045.7	7.7	7.9
17000.0	551.9	-0.6	-4.4	75.5	703.3	044.1	5.0	7.4
17500.0	541.5	-1.9	-4.8	60.7	693.4	042.6	1.6	6.5
18000.0	531.3	-3.2	-5.2	85.9	683.0	041.1	2.0	5.1
18500.0	521.3	-4.0	-5.5	89.1	672.8	040.0	18.1	3.3
19000.0	511.3	-4.6	-5.8	90.8	661.3	039.4	02.4	2.6
19500.0	501.6	-5.1	-9.0	74.0	650.4	038.0	119.1	4.8
20000.0	491.9	-6.1	-10.2	72.2	640.2	037.4	120.2	7.2
20500.0	482.4	-7.1	-11.0	73.5	630.4	036.5	125.9	8.8
21000.0	473.2	-8.1	-11.8	74.9	620.7	034.8	124.3	9.6
21500.0	464.0	-9.3	-13.2	72.8	611.4	033.4	121.0	9.7
22000.0	454.9	-10.2	-14.6	70.1	601.8	032.2	118.0	9.5
22500.0	446.0	-11.2	-15.6	70.0	592.6	031.0	106.0	8.0
23000.0	437.0	-12.9	-16.4	74.6	584.3	029.0	92.7	8.4

MISSION ALTITUDE 3912.75 FT. T HSL
21 JULY 82 1623 MDT
ASSEMBLY NO. 82

UPPER AIR DATA
2020240000Z
E-A

TABLE-18 cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL HUM. DEW POINT PERCENT	REL HUM. SOUND METER	LENSITY GM/CUBIC METER	WIND DATA DIRECTION DEGREES (IN) KNOTS	WIND DATA DIRECTION DEGREES (IN) KNOTS	INFLUX OF REFRACTION
23500.0	428.5	-14.5	-17.3	79.3	570.4	020.4	79.0	8.5 1.000137
24000.0	420.0	-16.2	-18.3	88.0	568.7	024.0	75.0	8.8 1.000135
24500.0	411.7	-17.9	-19.3	88.7	561.4	024.0	71.4	9.0 1.000133
25000.0	403.5	-16.4	-20.7	69.1	516.9	024.0	76.0	8.9 1.000129
25500.0	395.4	-16.4	-21.9	62.1	533.9	024.0	61.0	8.9 1.000125
26000.0	387.5	-17.6	-22.4	65.8	527.7	023.1	60.1	9.1 1.000123
26500.0	379.7	-18.6	-24.5	59.3	519.2	021.6	84.7	9.0 1.000121
27000.0	372.0	-19.5	-27.6	48.2	510.6	020.6	84.6	9.0 1.000117
27500.0	364.5	-20.4	-31.2	37.0	502.4	019.5	84.5	9.0 1.000114
28000.0	357.0	-21.5	-32.0	37.9	494.0	018.1	86.4	9.9 1.000113
28500.0	349.7	-22.6	-32.8	38.7	486.1	016.7	89.0	10.9 1.000111
29000.0	342.5	-23.7	-33.6	39.6	478.2	015.4	93.0	11.9 1.000109
29500.0	335.5	-24.9	-34.4	40.5	470.5	014.0	96.1	12.6 1.000107
30000.0	328.6	-26.0	-35.6	42.2	463.0	012.5	97.4	13.2 1.000105
30500.0	321.7	-27.3	-35.6	44.9	455.6	011.0	92.9	13.7 1.000103
31000.0	314.9	-28.5	-36.1	47.7	448.3	010.4	90.0	13.5 1.000102
31500.0	308.3	-29.8	-36.7	50.4	441.4	007.6	87.6	13.1 1.000100
32000.0	301.8	-31.0	-37.4	53.2	434.4	006.3	87.4	12.6 1.000098
32500.0	295.5	-32.4	-38.0	57.0	427.3	004.0	82.9	12.2 1.000097
33000.0	289.1	-33.5	-39.5	54.2	420.4	002.6	76.0	12.1 1.000095
33500.0	282.9	-34.3	-42.0	45.0	412.6	002.1	70.7	11.5 1.000093
34000.0	276.8	-35.4	-45.0	36.5**	405.6	000.7	66.1	11.0 1.000091
34500.0	270.8	-36.7	-48.3	28.6**	398.9	000.1	65.6	10.9 1.000089
35000.0	264.9	-38.0	-52.1	20.7**	392.3	000.6	65.1	10.9 1.000088
35500.0	259.1	-39.2	-57.1	12.8**	385.9	000.6	64.6	10.9 1.000086
36000.0	253.5	-40.5	-65.3	4.9**	379.5	000.2	67.1	11.1 1.000085
36500.0	247.9	-41.8			372.2	002.6	70.1	11.3 1.000083
37000.0	242.2	-43.1			366.8	000.7	75.4	11.5 1.000082
37500.0	236.7	-44.4			360.5	000.2	79.7	11.8 1.000081
38000.0	231.3	-45.7			354.3	000.0	83.0	12.0 1.000079
38500.0	226.1	-47.0			348.6	000.9	87.7	12.4 1.000078
39000.0	221.0	-48.3			342.3	004.2	94.1	13.3 1.000076
39500.0	215.9	-49.6			336.5	002.5	98.6	13.6 1.000075
40000.0	211.0	-50.9			330.7	000.0	102.0	13.5 1.000074
40500.0	206.2	-52.2			325.1	000.1	104.1	12.7 1.000072
41000.0	201.6	-53.5			319.6	000.4	104.7	11.8 1.000071
41500.0	196.9	-54.8			313.7	000.0	101.5	12.2 1.000070
42000.0	192.2	-56.1			307.7	000.2	98.5	12.5 1.000069
42500.0	187.7	-56.4			301.7	000.5	98.4	12.9 1.000068
43000.0	183.3	-57.4			295.9	000.6	100.0	13.3 1.000066

** AT LAST ONE SUMMATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3912.75 FT MSL
21 JULY 02 1623 MDT
ASCENSION NO. 82

UPPER AIR LAYER
2020290000
L-28
TABLE-18 cont'd

GEODETIC COORDINATES
J2.09927 LAT DEG
106.40591 LON DEG

GEOMETRIC ALTITUDE IN FEET	PRESSURE IN MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	AIR DEW POINT DEGREES CENTIGRADE	REL. HUM. PERCENT	SOUND SPEED IN/CURIC MLT	DENSITY IN/CURIC MLT	WIND DATA DIRECTION DEGREES (IN) KNOTS	INDEX OF REFRACTION
44500.0	170.9	-58.0			289.7	571.5	06.5	1.000005
44500.0	174.7	-58.6			283.6	570.6	57.9	1.000003
44500.0	170.5	-6.0			278.5	560.5	53.7	1.000002
45000.0	160.4	-61.3			273.0	567.0	54.5	1.000001
45500.0	162.4	-62.5			268.5	565.4	61.3	1.000000
46000.0	158.4	-63.4			263.0	564.5	67.4	1.000059
46500.0	154.5	-64.2			257.7	562.1	72.9	1.000057
47000.0	150.8	-65.1			252.5	561.9	76.6	1.000056
47500.0	147.0	-66.0			247.4	560.7	79.6	1.000055
48000.0	145.3	-66.8			242.0	559.7	80.5	1.000054
48500.0	139.8	-67.6			236.9	559.5	81.4	1.000053
49000.0	136.3	-68.4			231.9	557.4	70.6	1.000052
49500.0	132.9	-69.3			227.0	556.5	80.4	1.000051
50000.0	129.6	-70.1			222.3	555.2	87.9	1.000050
50500.0	126.3	-70.9			217.0	554.0	89.6	1.000049
51000.0	123.2	-71.2			212.5	553.0	76.6	1.000047
51500.0	120.0	-71.1			207.0	552.7	85.8	1.000046
52000.0	117.0	-71.0			201.7	552.9	88.6	1.000045
52500.0	114.0	-70.9			196.4	554.0	90.1	1.000044
53000.0	111.2	-70.7			191.2	554.4	90.4	1.000043
53500.0	108.4	-69.4			185.3	556.1	91.9	1.000042
54000.0	105.6	-70.0			181.4	555.3	97.6	1.000041
54500.0	103.0	-70.1			176.7	555.1	103.4	1.000040
55000.0	100.4	-69.6			171.6	555.6	107.4	1.000039
55500.0	97.9	-68.9			167.0	556.7	111.6	1.000037
56000.0	95.5	-68.3			162.3	557.6	114.0	1.000036
56500.0	93.1	-67.6			157.8	558.5	117.3	1.000035
57000.0	90.8	-67.0			153.4	559.3	115.1	1.000034
57500.0	88.5	-66.8			149.4	559.7	112.4	1.000033
58000.0	86.3	-66.5			145.3	560.1	108.9	1.000032
58500.0	84.2	-66.2			141.7	560.4	104.5	1.000031
59000.0	82.1	-65.9			136.1	560.8	110.0	1.000030
59500.0	80.1	-65.6			134.5	561.2	116.1	1.000029
60000.0	78.1	-65.4			131.0	561.6	121.4	117.3
60500.0	76.2	-64.8			127.4	562.3	125.2	119.2
61000.0	74.4	-63.9			123.5	562.0	120.5	121.8
61500.0	72.5	-62.9			120.2	564.0	114.7	124.9
62000.0	70.8	-62.0			116.5	566.1	111.1	127.2
62500.0	69.1	-61.5			113.7	569.0	108.5	129.0
63000.0	67.4	-61.2			110.6	567.2	107.4	129.1

STATION ALTITUDE 3412.75 FT. + 1 MSL
 21 JULY 12 1623 MDT
 ASSEMBLAGE NO. 62

UP-PLANE AIR DATA
 2020290000
 L-28

TABLE-18 cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEW-POINT DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY OF AIR GM/CUBIC METER	DEPTH OF WATER METERS	WIND DATA KNOTS (IN) WIND FRACTION	INDEX OR
03500.0	03.0	-60.9	108.0	367.5	100.0	27.3	1.000024
04000.0	04.2	-60.7	105.3	367.9	104.0	25.9	1.000023
04500.0	04.7	-60.4	104.6	369.2	98.0	25.3	1.000023
05000.0	05.2	-60.2	100.1	369.5	91.0	25.0	1.000022
05500.0	05.7	-59.9	97.5	369.9	95.0	25.2	1.000022
06000.0	06.3	-59.7	95.1	369.2	80.4	25.7	1.000021
06500.0	06.9	-59.4	92.7	369.0	77.0	26.7	1.000021
07000.0	07.5	-59.1	90.4	369.4	77.5	27.4	1.000020
07500.0	08.2	-58.8	88.1	370.4	81.9	27.2	1.000020
08000.0	08.9	-57.8	85.6	371.7	86.4	27.5	1.000019
08500.0	09.7	-56.8	83.2	372.0	91.0	28.9	1.000019
09000.0	10.4	-55.9	80.8	374.5	94.9	30.5	1.000018
09500.0	11.2	-55.2	78.7	375.2	96.6	32.7	1.000018
10000.0	11.9	-54.7	76.7	375.6	98.4	34.6	1.000017
10500.0	12.6	-54.2	74.8	376.4	99.4	34.6	1.000017
11000.0	13.0	-53.7	72.9	377.1	72.9	1.000016	
11500.0	14.8	-53.3	71.0	377.7	71.0	1.000016	
12000.0	15.8	-52.8	69.2	378.3	578.3	1.000015	

STATION ALTITUDE 3412.75 FT MSL
21 JULY 02
ASCENSION ISL. 02 1623 MNT

MAINTAINING LEVELS
202029n06e
E-28

GEODETIC COORDINATES
32°09'27" LAT DEG
106°40'59" LON DEG

PRESSURE, EQUIVALENT
MILLIBARS
FEET
MILLIBARS

TABLE-19

TEMPERATURE
AIR
DEGREES CENTIGRADE

WIND, HUM.
PERCENT
DEGREES (TN)
WIND DIRECTION
DEGREES (TN)

650.0	5000.	30.1	15.8	42.	131.0	5.6
400.0	6766.	25.5	12.0	45.	152.9	6.3
750.0	8615.	20.6	8.7	46.	139.9	5.4
700.0	10554.	15.2	5.1	5.	107.3	2.6
650.0	12601.	10.6	1.5	55.	76.5	6.7
600.0	14768.	4.7	-1.4	65.	10.4	7.1
550.0	17077.	-8	-4.4	76.	5.1	7.2
500.0	19554.	-5.2	-9.0	71.	120.5	5.1
450.0	22243.	-10.5	-15.2	65.	112.7	9.1
400.0	25171.	-15.7	-21.7	60.	79.0	0.8
350.0	28432.	-22.6	-32.0	39.	69.4	10.8
300.0	32081.	-31.4	-37.0	54.	86.9	12.5
250.0	36233.	-41.3	-41.3	60.	60.9	11.2
200.0	41070.	-53.9	-53.9	105.	7	11.9
175.0	43650.	-58.5	-58.5	50.	4	14.6
150.0	46974.	-65.3	-65.3	77.	1	14.0
125.0	50564.	-71.2	-71.2	67.0	19.2	
100.0	54909.	-69.5	-69.5	107.9	50.5	
80.0	59327.	-65.6	-65.6	116.1	15.5	
70.0	62011.	-61.6	-61.6	110.0	27.9	
60.0	65157.	-60.0	-60.0	86.9	20.1	
50.0	68919.	-55.5	-55.5	95.5	31.1	

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

